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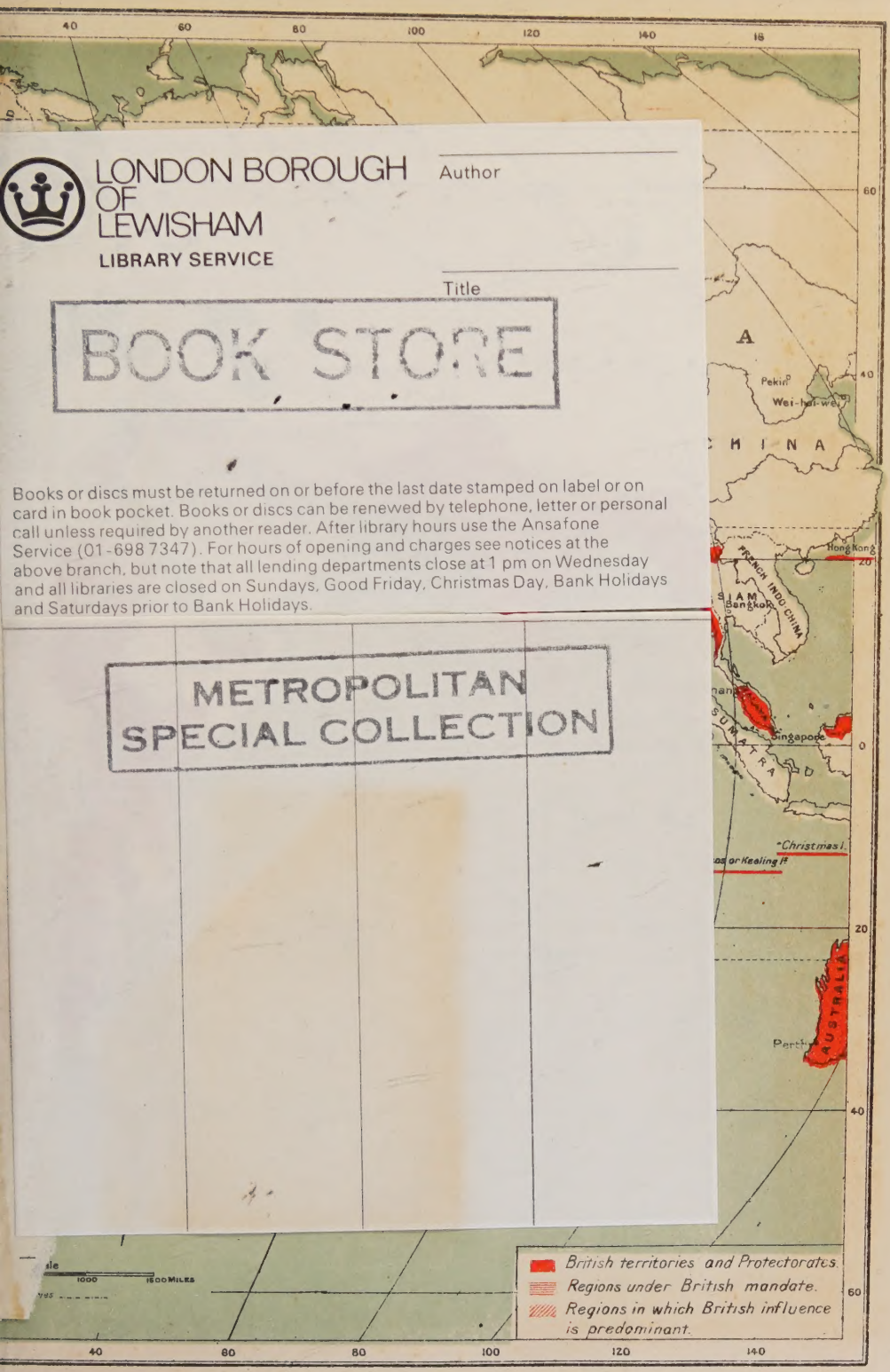

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THE BRITISH EMPIRE

A Survey in 12 Volumes—each self-contained

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INTRODUCTION TO THE SERIES

A WORD is necessary as to the origin and object of this series. The Management of the British Empire Exhibition (1924), in the early days of its organisation, approached the Imperial Studies Committee of the Royal Colonial Institute for advice and assistance in connection with the educational aspect of the Exhibition's work. The Editor of this series, who is a member of that Committee, happened during a period of enforced leisure to be spending a good deal of his time at the Institute, chiefly in its delightful Library. On its shelves he found entrancing reminiscences or records of men who went forth from these islands as Pioneers to brave the perils of uncharted seas and the dangers of unknown lands, inspired more by the spirit of adventure inherent in the race than by any calculated design for personal gain or lust for the acquisition of new territories. From these volumes could be traced the beginnings and gradual growth of remote colonies, through the early stages of awakening public interest, followed perchance by apathy or neglect until the advent of some world movement brought them into the fierce light of economic and international importance.

Though there lay upon the shelves an immense mass of valuable literature on almost every phase of Imperial work, it became apparent to the Editor that there was no series of volumes which gave a complete survey of the history, resources, and activities of the Empire looked at as a whole. He felt that there was need for a

series which would provide the ordinary reader with a bird's-eye view, so to speak, of these manifold activities.

The time seemed appropriate for such a survey. The Empire had emerged victorious from the greatest of wars. The Dominions which had contributed so magnificently to the victory had sprung, as it were, at a bound not only into the consciousness and acknowledged status of full and equal nationhood with the Mother Country, but also into definite recognition by Foreign Powers as great and growing World-Forces.

The decision to hold in London an Exhibition in which the vast material resources and industries of the Empire would be brought vividly before the public seemed also to demand that there should be a record and survey of the growth and development of this far-flung congeries of countries and peoples that are called the British Commonwealth of Nations.

The Editor accordingly consulted some of his friends, and was fortunate in securing their assistance and advice. The Management of the British Empire Exhibition welcomed the scheme as supplementing from the intellectual side what the Exhibition was doing from the material aspect. He has also been fortunate in obtaining the co-operation, as authors, of distinguished men, many of whom have played a foremost part in the public life or administration of the territories concerned, and all of whom have had wide personal knowledge and experience of the subjects which they treat. The Editor's thanks are especially due to these authors. They have undertaken the work from a sense of duty and from a desire to provide, at an important stage in our history, authoritative information regarding the great heritage that has been bequeathed to us, not only unscathed

but strengthened by the stern struggle through which it has passed.

Each volume is self-contained and deals with a special aspect of the Empire treated as a whole. The volumes are, however, co-ordinated as far as possible, and give, it is hoped, a comprehensive survey of the Empire.

The writers have had complete freedom as regards the statement of their views, and it is to be understood that neither the Editor nor his advisers are responsible for such individual expressions of opinion.

The late Sir George Parkin was deeply interested in the scheme, and, but for his lamented death, would have contributed a volume to the series.

The Editor, in conclusion, desires to express his thanks to Lord Morris, and to Sir Charles Lucas, especially the latter, for the benefit of their advice and ripe experience.

HUGH GUNN,
General Editor.

LONDON, *April*, 1924.

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THE UNIVERSITIES AND
EDUCATIONAL SYSTEMS
OF THE BRITISH EMPIRE

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THE UNIVERSITIES AND EDUCATIONAL SYSTEMS OF THE BRITISH EMPIRE

by

ARTHUR PERCIVAL NEWTON,
M.A., D.Lit., B.Sc., F.S.A.
Rhodes Professor of Imperial History in the University of London

vol 15 of Series

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PREFACE

To give a conspectus of so tangled a mass of regulations, forms of organisation, requirements, and so on, as is exhibited by the Universities of the British Empire, let alone its educational systems, is a task that is baffling in its complexity. There is an absolute surfeit of facts of the dullest and most forbidding character, and at first sight there seems no clue to find one's way through the maze. Most writers who have attempted to handle the subject, at any rate of recent years, appear to have contented themselves with the compilation of something of the nature of a directory, where facts are arranged in alphabetical or numerical order, with no connection between them. I should be ashamed to add another compilation of that kind to a list that is already long, for the need of a handbook of information, as far as the Universities are concerned, has been admirably and definitively filled by Mr. W. H. Dawson in his *Yearbook of the Universities of the Empire*, published for the Universities Bureau by Messrs. G. Bell and Sons. Without that volume, I could never

have attempted my task, but with it as a starting point I have found a means of marshalling some of my facts in logical order. I have tried to show that there is a real line of historical development running through the experiments in university education in the British Empire, and that they stand apart from the universities of other parts of the world in a class by themselves. With one notable group of exceptions, they are recognisably British, and my clue through the maze has been this thread of British influence which I have picked up in Oxford, Cambridge, Edinburgh, and London. The tracing out of this thread has proved interesting to me. I hope it will redeem the first part of the book a little from that vice of unbearable dullness that seems to afflict every educational compilation. In the second part, dealing with educational systems, I must confess myself beaten. I have not been able in the space at my disposal to trace out their historical development, and I have had to be content with an attempt to describe some of their main features as they are, or very recently were. This caution is necessary, for constantly repeated attempts at educational reform are going on in all parts of the Empire, and it is difficult to keep one's information absolutely

up to date. The field is so vast, and each corner of it is so familiar to its own experts, who revel in niceties of detail, that a mere teacher, whose main business in life is not that of educational organisation, must appeal for mercy for the slips of description or explanation into which he cannot have failed to fall.

ARTHUR PERCIVAL NEWTON.

ROYAL COLONIAL INSTITUTE, W.C. 2.
April, 1924.

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THE UNIVERSITIES AND UNIVERSITY COLLEGES OF THE BRITISH EMPIRE

ENGLAND.

University of Birmingham.

University of Bristol.

University of Cambridge.

Colleges—Christ's (founded 1503), Clare (1326), Corpus Christi (1352), Downing (1800), Emmanuel (1584), Gonville and Caius (1348), Jesus (1496), King's (1441), Magdalene (1542), Pembroke (1347), Peterhouse (1284), Queens' (1448), St. Catharine's (1473), St. John's (1511), Sidney Sussex (1596), Trinity College (1546), Trinity Hall (1350),

Hostels—Selwyn College (1882), Fitzwilliam Hall for non-collegiate students (1887).

Women's Colleges—Girton (1869), Newnham (1871).

University of Durham.

Colleges at Durham—University College (1832), Hatfield (1846), St. Chad's (1904), St. John's (1909).

Hostel—Bede College (1919).

Women's Hostel—St. Mary's College (1899).

Colleges at Newcastle-on-Tyne—Armstrong College and the College of Medicine.

University of Leeds.

University of Liverpool, including—
The School of Tropical Medicine.

University of London.

Incorporated Colleges—University College (1823), King's College (1829).

Schools of the University—Imperial College of Science and Technology (1907), London School of Economics and Political Science (1895), East London College

(1892), Birkbeck College (1823), South-Eastern Agricultural College (1894), London Day Training College (1902), School of Oriental Studies (1916).

Women's Colleges—Bedford College (1849), Royal Holloway College (1886), Westfield College (1882).

Theological Colleges—New (1696, 1850, Congregational), Hackney (1803, Congregational), Regent's Park (1810, Baptist), King's (1829, Anglican), Wesleyan College, Richmond (1843), St. John's Hall (1863, Anglican), Jews' College.

Medical Schools—St. Bartholomew's (1662), St. Thomas's (16th century), Westminster (1834), Guy's (1769, 1826), St. George's (1752), London Hospital (1781), Middlesex (1835), Charing Cross (1821), London School of Medicine for Women (1874), University College Hospital (1823, 1905), King's College Hospital (1829, 1909), St. Mary's (1852), London School of Tropical Medicine (1899), Lister Institute (1901), Royal Dental Hospital (1858), National Dental Hospital (1877).

University of Manchester, including—

The College of Technology.

University of Oxford.

Colleges—All Souls (founded 1437), Balliol (1263-8), Brasenose (1509), Christ Church (1546), Corpus Christi (1516), Exeter (1314), Hertford (1874), Jesus (1571), Lincoln (1427), Magdalen (1458), Merton (1264), New College (1379), Oriel (1326), Pembroke (1624), Queen's (1340), St. John's (1555), Trinity (1554-5), University College (1249), Wadham (1610), Worcester (1714), St. Edmund Hall (1269), Keble College (1870).

Women's Recognised Societies—Lady Margaret Hall (1878), Somerville College (1879), St. Hugh's College (1886), St. Hilda's Hall (1893), Society of Oxford Home Students (1879).

University of Sheffield.

Unattached University Colleges (Students take the degrees of the University of London) :—

University College, Exeter.
University College, Nottingham.
University College, Reading.
University College, Southampton.

WALES.

The University of Wales, comprising—

University College of Wales, Aberystwith.
University College of North Wales, Bangor.
University College of South Wales and Monmouthshire, Cardiff, including the Welsh National School of Medicine.
University College, Swansea.

SCOTLAND.

University of Aberdeen.
University of Edinburgh.
University of Glasgow, including—
The Royal Technical College.
University of St. Andrews, including—
University College, Dundee.

NORTHERN IRELAND.

The Queen's University of Belfast.

IRISH FREE STATE.

University of Dublin, Trinity College.
The National University of Ireland, including—
University College, Dublin.
University College, Cork.
University College, Galway.
The Royal College of Science for Ireland, Dublin.

MALTA.

University of Malta.

CANADA.

NOVA SCOTIA :—

Acadia University, Wolfeville.
Dalhousie University, Halifax.
University of King's College, Windsor.
University of St. Francis Xavier, Antigonish.

NEW BRUNSWICK :—

Mount Allison University. Sackville.
University of New Brunswick, Fredericton.

QUEBEC :—

University of Bishop's College, Lennoxville.
Laval University, Quebec.
McGill University, Montreal.
Montreal University.

ONTARIO :—

McMaster University, Toronto.
University of Ottawa.
Queen's University, Kingston.
University of Toronto, with which are associated—
University of Trinity College, Toronto.
Victoria University, Toronto.
St. Michael's College, Toronto.
Western University of London.

MANITOBA :—

University of Manitoba, Winnipeg.

SASKATCHEWAN :—

University of Saskatchewan, Saskatoon.

ALBERTA :—

University of Alberta, Edmonton.

BRITISH COLUMBIA :—

University of British Columbia, Vancouver.

AUSTRALIA.

University of Adelaide.
South Australian School of Mines and Industries.
University of Melbourne.
Affiliated Colleges—Trinity, Ormond, Queen's, Newman.

University of Queensland, Brisbane.
Residential Colleges—Emmanuel, St. John's, King's, St. Leo's, Women's.
University of Sydney.
Residential Colleges—St. Paul's, St. John's, St. Andrew's, Wesley, Women's.
University of Tasmania, Hobart.
University of Western Australia, Perth.

NEW ZEALAND.

The University of New Zealand, with which are affiliated—
University of Otago, Dunedin.
Canterbury College, Christchurch.
Auckland University College.
Victoria University College, Wellington.

UNION OF SOUTH AFRICA.

University of South Africa, Pretoria, with the following Constituent Colleges—
Grey University College, Bloemfontein.
Huguenot University College, Wellington, C.P.
Natal University College, Pietermaritzburg.
Rhodes University College, Grahamstown.
Potchefstroom University College.
Transvaal University College, Pretoria.
University of Cape Town (incorporating the South African College).
University of Stellenbosch.
University of the Witwatersrand, Johannesburg (incorporating the South African School of Mines and Technology).

INDIA.

Aligarh Muslim University.
University of Allahabad (with twenty-six affiliated Institutions).

Benares Hindu University.

University of Bombay (with twenty-one affiliated Institutions).

University of Calcutta (with thirty-four affiliated Institutions), including :—

Presidency College, Calcutta.

Bengal Engineering College, Sibpur.

University of Dacca.

University of Lucknow, including—

King George's Medical College, Canning College, and Isabella Thorburn College for Women.

University of Madras (with twenty-four affiliated Institutions).

University of Mysore.

Osmania University, Hyderabad, Deccan.

University of the Punjab, Lahore (with twenty-two affiliated Institutions).

Patna University (with eight admitted Colleges).

University of Rangoon, Burma (including University College and Judson College.)

The Indian Institute of Science, Bangalore.

HONG-KONG.

University of Hong-Kong.

CHAPTER I

UNIVERSITY DEVELOPMENT IN THE BRITISH EMPIRE TO 1826

THE diversities of University organisation and practice in the British Empire are as multifarious as its diversities of government, and, like them, are difficult to explain without some historical investigation of the circumstances under which they have developed. As these circumstances are explored, we can distinguish certain great epochs of university growth and note certain streams of influence which, proceeding from the great universities of England and Scotland, have moulded the newer institutions according to a few patterns. There are some universities in Canada which have derived little from English sources, and others which have derived only indirectly from those sources through the experience of the State universities of the United States, but like the newer universities in the United Kingdom, all the universities of the self-governing Dominions and India were planned at their foundation according to the prevailing

educational ideas of the time. The development of all the newer foundations has been closely parallel, so that there is now a general similarity of university organisation and curriculum throughout the Empire, which marks them, with some few exceptions, as peculiarly British institutions. The predominant influences that have produced this result have proceeded from four independent sources, each of a quite distinct pattern, (1) the ancient Universities of Oxford and Cambridge, (2) the Scottish University of Edinburgh, (3) the great London colleges and medical schools, and lastly (4) that artificial construction of the mid-Victorian epoch, the examining University of London, which was so drastically re-modelled for its good at the beginning of the present century. It was from this last source that many universities derived their original inspiration in structure and methods, though these methods, save in India, have now been very largely discarded.

The American colonies of the old Empire possessed colleges of a university type almost from their earliest settlement, but the inception of the first place of higher education in the colonies of to-day dates only from 1710, when General Sir Christopher Codrington by the terms of his will left estates to the Society

for the Propagation of the Gospel to found a college in Barbados for the education of young men for the Church. John Harvard, one of the first settlers in Massachusetts, founded his college near Boston in 1638 on the model of Emmanuel College in the University of Cambridge, where he had himself been educated, and from this modest foundation one of the great universities of the world has grown to its present position and influence. William and Mary College in Virginia dates its foundation from 1693, and Yale University at New Haven in Connecticut from 1701, while King's College in New York, the nucleus of the Columbia University of to-day, was founded in 1754. In every one of these cases, one of the main purposes of the foundation was to train candidates for the ministry, and they thus had an identical origin with the first English and Scottish universities.

The earliest beginnings of the University of Oxford may be traced back to the middle of the twelfth century, when students and teachers who had left the University of Paris assembled themselves under the shadow of Henry II.'s palace at Beaumont. Cambridge is a little younger than Oxford, for its beginnings stretch back only to the end of the twelfth century, and it did not receive its first charter as a

university until the reign of Henry III. (1231). Only Paris and Bologna can claim a greater antiquity than the two great English seats of learning, and in neither of them have ancient forms survived with the same unbroken continuity as in England. The fourteenth century was notable for the rapid development both at Oxford and Cambridge of the system of residential colleges, which, starting with the foundation of Merton College in Oxford in 1281, was designed to provide discipline and support for diligent students amid the licence and disorder of the universities that had little organisation, either for study or discipline. The colleges had some endowment from their foundation, and thus had a nucleus of funds and buildings with which to maintain continuity, but the universities had little or none, and their control therefore fell easily into the hands of the college authorities. Before the end of the fourteenth century the great majority of the students in each university were members of some college or another, and in later centuries it became impossible to enter the university without previous acceptance by a college. In this way, while Oxford and Cambridge developed along closely parallel lines, they became differentiated from the many Continental universities that took their rise during

the mediæval period, and in which their colleges never reached the same dominant position. The variety of the attractions of the colleges gave to the English universities peculiarly distinctive characteristics, and were such as to draw towards them the whole stream of benefactions. There were no efforts to found elsewhere in England fresh universities such as grew up all over France and Italy. It was not until the close of the sixteenth century that a new English university was founded. This was not upon English soil, but in the Irish city of Dublin, where it was intended to form a place of education for the English colonists and the Irish who had accepted English manners. From it learning and culture were to be diffused through the wilds. The foundation of Trinity College, Dublin, in 1592 may truly be called the foundation of the first colonial university, for its purposes were exactly similar to those of the founders of more modern institutions, and, like many of them, Queen Elizabeth and her advisers avowedly took the Colleges of Oxford and Cambridge as their pattern.

Meanwhile there was growing up in Scotland an entirely different university tradition that derived nothing from English sources, but a great deal from Paris, and perhaps even more

from Bologna. The Scottish universities were all founded for the direct purpose of training up men of education for the priesthood and the ministry, that through them sound learning and culture might pass down to the wild and untutored people of a backward country. St. Andrews (1411), Glasgow (1451), and Aberdeen (1494), were all founded under ecclesiastical inspiration, and by virtue of charters from the Papacy. Their origin made them from the beginning not only places for the study of Theology, Logic, and Philosophy, but also what the English universities never were particularly prominent in, centres for the training of students in canon and civil law. The system of residential colleges was introduced, but it has lost its hold in Scotland, although there are still some rudiments of a college system remaining at St. Andrews. The Reformation brought fresh vigour into every side of Scottish life, and an immense interest in religious disputation, and the desire for highly educated ministers who could lead their flocks, not only in religious, but also in political affairs. This gave a magnificent impetus to the universities. In 1583 the Town Council of Edinburgh founded and endowed a "Town's College" for the pursuit of learning, which was the genesis of the

University of Edinburgh, and in 1593 a new institution, Marischal College, was founded in Aberdeen, by George Keith, Earl Marischal of Scotland, alongside but independent of the university, with which it was not united until the great Scottish university reforms of 1859-60. From the end of the sixteenth century onwards, the universities began to play a highly important part, and as not only the ministers, but also lawyers and medical students, received a large part of their training in the universities, these were far more closely interwoven with the life of all classes of the Scottish nation than were Oxford and Cambridge with the English.

Since the fourteenth century, English lawyers have possessed closely organised and well-endowed professional institutions near the Courts of Law in London which are known as the Inns of Court, and, in addition to the oversight of professional interests, they have charged themselves more or less actively with the education of students of the law. These Inns of Court have by long prescription the sole right of certifying the fitness of a person to become a pleader in the superior courts of law, and they have always been entirely independent of the universities and have made no demand for a preliminary training in Arts

before the commencement of legal study, such as is common in most other parts of the world. The training and examination of candidates for the lower branch of the legal profession, that of solicitors or attorneys-at-law, has also always been confined to the profession itself, and has never in England and Wales been a concern of the universities. Since 1825 this training, though still partaking very largely of its earlier character of apprenticeship, has been regularised under the control of the professional society, the Law Society. Classes for the examinations may be held in certain of the new universities, but examination before admission to practise as a lawyer is entirely independent of any university or its degrees.

The medical profession in England was unorganised until the reign of Henry VIII., when Thomas Linacre, physician to the king, was instrumental in the founding of the College of Physicians (1518) to control the profession and safeguard its reputation and interests. His designs for ensuring the proper education of candidates were to further the study of medicine in the universities, where it had very largely been neglected. He therefore founded and endowed Readerships in Merton College, Oxford, and St. John's,

Cambridge, but they achieved little success, and medical education, as before, had to be sought not in a university, but in the course of apprenticeship to a physician, A licence of competence to practise was obtained from the Royal College of Physicians, and, as an apothecary, from the similar body of lesser rank, the Society of Apothecaries, founded in 1617. There was no systematic instruction by these bodies to the candidates for their diplomas, and this could only be obtained in a haphazard way by a system of private coaching and by attendance at the hospitals, notably St. Bartholomew's, where there were rudiments of a medical school from 1662. Surgery was even in worse case, and its practitioners were little regarded until towards the end of the eighteenth century. The London Company of Barber-Surgeons issued licences of competence to practise surgery from the sixteenth century onwards, but educated skill could only be acquired by apprenticeship and attendance at private schools of anatomy. The Royal College of Surgeons was not founded until 1800, after the great changes of the later eighteenth century, and as a consequence of the rise in the status of the profession, owing to the exertions of the great brother anatomists, William and John Hunter.

Both in medicine and surgery, as in law, therefore, the English universities played little part down to the nineteenth century, and what organised education there was had to be obtained either in a private school or a school attached to a hospital, and licences of competence to practise were granted after examination, according to the greatly varying standards of certain more or less lax professional bodies. It is from these historical accidents that there arises the anomaly that, whereas most medical practitioners in Scotland and the Dominions hold university degrees in medicine and surgery and practise by virtue of them, in England this is much less usual even at the present day, and a majority of general practitioners practise, not by virtue of a university degree, but by licence of their own professional bodies, the Royal Colleges of Physicians and Surgeons or Apothecaries' Hall under the control of a statutory body, the General Medical Council, established in 1858.

Oxford and Cambridge by the end of the eighteenth century, when new British colonies first began their growth, had settled down into a somewhat narrow groove of comfortable lethargy as places for the education of the clergy of the Church of England and schoolmasters for the ancient public schools, and

for the placing of finishing touches upon the manners of the sons of the nobility and landed gentry. Cambridge still had some of the zest for mathematical research that had been fostered by Sir Isaac Newton, but the great streams of English learning and investigation, both scientific and literary, flowed neither through nor from the universities. They had come to be regarded by the mass of Englishmen in much the same light as that in which their members were mostly prone to regard them—as the preserve of the well-to-do, closely guarded for the Established Church by religious tests, and disdainful of the common herd. To this depth the Scottish universities never fell, and, therefore, when men in the colonies came to desire the foundation of places for higher education, it was either to Scotland or to the old colleges of English foundation in the United States that they looked for their first models.

The great evangelical revival among English Nonconformists in the latter half of the eighteenth century was accompanied by a desire for a higher standing of education among candidates for the ministry. The universities were closed to them by religious tests and by their great expense, and therefore movements sprang up for the establishment of theological

colleges in connection with many denominations. The earliest was the Congregationalist College, now called New College, Hampstead, which was founded in 1696. Another was founded in South Wales by the Countess of Huntingdon in 1768 for Methodists, and removed to Cheshunt in 1792. Hackney College (Congregational) was founded in 1803, and Regent's Park College (Baptist) in 1810, and there was a parallel movement in the Church of England for founding places of training for missionaries in distant lands. Something will be said later of this movement, in connection with India. The first college founded in what are now the self-governing Dominions owed its inception in part to the stirring of this evangelical movement, and in part to the desire of the United Empire Loyalists who had been driven from the seceding thirteen colonies to found in their new home in Nova Scotia such a college as those they had left behind them. King's College, Windsor, N.S., was founded in 1790, and in 1802 received by Royal Charter the power of granting degrees, thus becoming the first institution of full university rank in the British realms beyond the sea. Its foundation was fostered by the Anglican Church, which is still closely associated with its

government. The idea that a colonial community ought to be able to provide within itself for every educational need of its citizens was much in the air in British North America at this period, and the Colonial Office was striving without much success to foster the establishment of university colleges. A King's College was projected at Toronto as early as 1798, and in 1810-11 a plan for the constitution of a provincial university at Montreal had proceeded so far that a public-spirited citizen of Scots descent, James McGill, left a considerable property to establish a college within the university. Neither project matured for some years, but in 1800 the College of New Brunswick was founded at Fredericton, N.B., and was endowed by the Crown with certain lands. In 1828 a new Royal Charter was obtained, further endowment from provincial sources was granted by King George IV., and the Provincial Legislature agreed to make an annual grant; King's College, Fredericton, thus becoming one of the earliest State-aided institutions for higher education.[1] Two colleges were founded in the same period in the provinces of British North America, which both derived their inspiration, not from the

[1] The College was in 1859 merged into the newly-established University of New Brunswick.

foregoing sources, but directly from Scottish experience. Dalhousie College, Halifax, N.S., was founded under the leadership of the Earl of Dalhousie in 1818, with the approval of Lord Bathurst, then Colonial Secretary. The college was founded "on the same plan and principle as that in Edinburgh, open to all occupations and sects of religions, restricted to such branches only as are applicable to [the] present state [of the Province] and having the power to expand with the growth and improvement of [its] society." It was not until 1838-41 that the college began work, and it suffered many vicissitudes, culminating in a temporary eclipse between 1845 and 1863.[1] McGill University, Montreal, was founded by Royal Charter in 1829, but, like Dalhousie, the new institution passed through many difficulties, and it was not until the middle of the nineteenth century that it was fully launched on that career of development that has made it one of the most important universities in the British Empire. The Montreal Medical Institution was founded independently in 1824, but in 1829 it was incorporated with McGill University, and became its Medical Faculty,

[1] Dalhousie University was not fully organised until 1879, but it is now the most important place of higher education in the Maritime Provinces.

after the pattern of the University of Edinburgh.

The first period of those into which our subject is naturally divided, merges into the second in the decade 1820-30, but its close saw little apparent difference in the condition of university affairs in the British realms from that of two centuries earlier. The four Scottish universities at that date played much the same part in the national life that they had always done since the Reformation, but their further development was clogged by many outworn regulations and customs, and the most inspiring elements of progress lay rather outside than within them. Oxford and Cambridge were still the only universities in England and Wales, and Trinity College the only one in Ireland. Their influence was undoubtedly less in proportion to that of the other elements in the national life than it had been in the seventeenth century, and there were few signs of their revival in popularity or in strength. Legal education and examinations stood entirely apart from them, and their influence on the medical profession was almost negligible. Out of 300 licentiates of the Royal College of Physicians, and about 300 country practitioners not holding the licence, less than 100 had university degrees in 1827. There were

only six graduates among the 6000 members of the Royal College of Surgeons, and only one in a thousand of the 8000 practising attorneys. But a great stirring was taking place in medical education and medical science owing to the influence and exertions of certain eminent physicians and surgeons, and this was centred in the great London hospitals, where several medical schools were now securely established, especially at St. Thomas's, St. Bartholomew's (1662), St. George's (1752), and the London Hospital (1781). Natural Science had already made great strides in England, but, save for Mathematics and Astronomy at Cambridge, it lay outside the university curriculum, and advance in scientific research was the work rather of men who were independent of the universities than of their professors and teachers, In the already rapidly-growing colonies there were none but the feeblest of colleges struggling into life in the face of incessant difficulties. A new spirit was needed to vivify the dry bones, and its advent was imminent from an entirely fresh quarter.

CHAPTER II

THE UNIVERSITY OF LONDON AND UNIVERSITY REFORM, 1826-1858

THE great period of reform and reconstruction that followed the close of the Napoleonic Wars was nowhere more remarkable than in the sphere of education. Two lines of tendency became prominent in England, and each had its parallel in the colonies. The first sprang from the Churches and those who were convinced that religious teaching was the groundwork of all sound education and the only basis of morality; the second from the group of men who were inspired by the Utilitarian philosophy of Jeremy Bentham, and, disbelieving in dogmatic theology, desired to base all higher education on grounds of reason alone. The group whose plans followed this secular line numbered among it many men of the highest ability and public spirit, many of whom, like Henry Brougham, James Mill, Zachary Macaulay, and Joseph Hume, were of Scottish descent and training, and most took an active interest in Britain's work

in India and in the colonies. The idea of establishing a new university in London upon entirely different principles from those prevailing at Oxford and Cambridge probably sprang from the brain of Bentham, but it was the Scottish poet, Thomas Campbell, who stood forward as its principal advocate and was foremost in pressing the plan upon the public. He had seen a good deal of the new movement that was revolutionising the German universities, and desired to introduce into England much of their improved educational methods. The agitation began in the autumn of 1824, and succeeded in raising such a considerable subscription as to enable the new institution to commence work as the "University of London" on October 1st, 1828, with a prominent Whig, Lord Auckland, as the first chairman of its council. It was claimed that it would assist in the education of young men from the colonies where no places for academic study existed, and that, being entirely free from all religious tests, it would be attractive to students of every denomination, and even to those who did not adhere to Christian doctrines. Besides this, its fees were to be so low as to make a university education possible for young men of the middle class. They had hitherto been

debarred from it by the great expense of the old universities, due to the high charges of the colleges and the extravagant scale of living that prevailed. The new institution would provide, too, for professional courses in Law and Medicine that were lacking at Oxford and Cambridge, and for the systematic teaching of Natural Science which was so badly deficient everywhere.

Party spirit ran extremely high at this period, and the Utilitarians who were responsible for the foundation of the new college were not only detested by their political opponents, but actually accused of holding doctrines that were dangerously subversive to the British Constitution. Their ideas concerning religion were anathema to Churchmen, especially to those devout and earnest reformers who at this period were labouring to carry the benefits of education to the poorer classes. All the factors necessary for a first-rate controversy were therefore present, and the appeals for subscriptions from the Liberals were met by similar appeals to Churchmen and the believers in the traditional system of "Church and State" to endow a place of sound learning in London where the pernicious doctrines of the "godless" so-called "university" might be counteracted. It may seem superfluous

a century later to recall these echoes of a long-dead quarrel, but they have a most important bearing on the development of university education in London, and thence on the rest of the Empire in the nineteenth century. The Duke of Wellington and his supporters, while they detested their principles, fully admitted the value of the projects of the Utilitarians to supplement the terrible deficiencies in English university education, but they found an additional need in the requirements of the many newly founded Church elementary schools for well-educated teachers, and a demand for educational facilities for the poorer candidates for Holy Orders which Oxford and Cambridge were unable or unwilling to supply.[1] This party, with the general approval of the king and the Cabinet, began to move in 1828 for the foundation of a university college to further the general education of the Metropolis, "in which, while the various branches of Literature and Science are made the subjects of Instruction, it shall be an essential part of the system to imbue the minds of youth with the knowledge of the doctrines and duties of Christianity, as inculcated by the United Church of England

[1] This demand was not met until 1847, when the Theological Department of King's College was founded.

and Ireland." A Royal Charter was granted in 1829, and in October, 1831, "King's College, London," commenced its work in a fine building on a site granted by the Crown. The rival institution had since the date of its foundation been endeavouring to obtain the power of granting degrees and a proper right to its self-assumed title of the "University of London," but these attempts had failed owing to the unacceptability of the views of its founders. The foundation of King's College made it impossible that either of the rivals should be a university, for they were of equal standing, and to have rival universities in one city was obviously contrary to the public interest.

In 1836, therefore, as a compromise, a new idea was brought to completion, and a University Charter was granted to a group of "persons eminent in literature and science to act as a Board of Examiners, and to perform all the functions of the Examiners in the Senate House of Cambridge." The business of teaching was confined at first to University College and King's College, and only their pupils could be admitted to the examinations of the new "University of London," but the Crown reserved the right to name from time to time other educational bodies whose students

might be examined, and this right was exercised with an open hand. Within ten years, therefore, three new types of educational institution were established in London. There were two colleges, University and King's, each with a distinguished professoriate for the cultivation of learning and for teaching new subjects that lay outside the traditional university curriculum. Each had its own characteristic temper and outlook, but they resembled one another in that, unlike Oxford and Cambridge, both were non-residential after the pattern of the Scottish universities, which during the latter half of the eighteenth century had abandoned the enforcement of their old regulations. The third novelty was a board called a university that abdicated in favour of the colleges all the ancient and traditional functions save one. Standing outside them, and governed quite independently, it devoted itself almost wholly to the development and perfecting of a stringent examination system that was almost as novel as itself. Each of these three innovations found a sphere of usefulness from the beginning, and each had a profound influence far beyond the metropolis.

The foundation of King's College, London, was followed in 1832 by the endowment of

the University of Durham with very similar aims. Its funds were provided to a considerable extent from ecclesiastical revenues, and its students were lodged under the shadow of the cathedral in residential colleges within the ancient Bishop's Palace. In 1832 also, a College of Medicine was founded at Newcastle-on-Tyne, but it was not associated with Durham University until 1852. Queen's College, Birmingham, was founded under the auspices of the Church in 1828 as a school of Medicine and Theology, but the earliest medical school in England outside London was that at Sheffield, founded in 1792. The Leeds School of Medicine began in 1831, and these schools were purely professional; their pupils were not aspirants for university degrees, but joined the ranks of the many London candidates for the licences of the Colleges of Physicians and Surgeons or of Apothecaries' Hall.

While higher education in England was thus making a fresh start, Scotland was living in a great period of university reform. Each of the universities, and especially Edinburgh, had endeavoured during the eighteenth century to shake itself free from outworn regulations. They were always more closely associated with the State than were the English

universities; they were the recipients of various government grants, and on more than one occasion Royal Commissions had been appointed to investigate their difficulties. Though the universities were closely associated with the Established Church, little impetus for reform came from the schools of Divinity or Philosophy; the zest for progress was especially to be found in the Faculty of Medicine which was organised in Edinburgh as early as 1726. The strength of Edinburgh lay in a fully developed professorial system which provided the university with active teachers of eminence in their professions, and each of whom devoted himself to the furtherance of a special subject. Throughout the eighteenth century the system was steadily extended; natural philosophy, civil law, history, anatomy, chemistry, natural history, midwifery, and many other subjects received endowments for new chairs from public sources, and in 1790 the first professorship in agriculture in the Empire was founded by a private benefaction. Edinburgh was the first university to concern itself systematically and successfully with the modern extensions of knowledge, so that the influence of its example in other parts of the Empire was very strong. The reputation of its graduates, too, in the first half of the

nineteenth century stood even higher than usual, and many students came to the university from England and Ireland, and more from the West Indies, Canada, and the other colonies, than to all other British institutions put together. But rapid progress necessarily involved many disputes on questions of principle, and in 1826 a Royal Commission was appointed under the chairmanship of Lord Aberdeen to investigate the difficulties that had arisen in Edinburgh, and to frame modern rules and ordinances for all the four Scottish universities. Its deliberations and recommendations gave rise to a large amount of public discussion between 1830 and 1837, and thus to a quickened interest in university affairs, but the scheme that was recommended by the commission could not be carried forward for several years, and it was not until the momentous year of university-reform, 1858, that an Act of Parliament was passed to bring it into effect. From that date onward the Scottish universities were provided with a uniform and generally successful scheme of government that has needed little further alteration.

After the foundation of McGill and the other Canadian institutions that have been mentioned, the next colonial college was the

South African College at Cape Town, which began in 1829 as a proprietary institution. Though it started with very high aims, it was in its early days not much more than a high-class school. In 1837 it came under public management, and as it gradually weathered its initial difficulties, it became more and more a college of university type, and was the nucleus of the present University of the Cape of Good Hope. In India the meagre policy of the educational government of the East India Company down to about 1835 was directed solely to the furtherance of Oriental learning, but in 1817 a Hindu college was founded in Calcutta by private subscription to introduce ideas of Western education, and this was the beginning of Presidency College, which has now for many years been supported by the Government. In 1818, in contrast to this rationalistic institution, a missionary college was founded on Danish territory at Serampore to escape the restrictions of the Government of Bengal, and in 1827 it received from the King of Denmark a charter empowering it to grant university degrees. In 1830, however, the powerful Scottish influence came into Indian education when Alexander Duff, taking advantage of the introduction of a new policy towards missions,

established at Calcutta the institution that later became the Scottish Churches College. Two divergent strains were therefore introduced from the beginning into Indian as into London university education, and this inevitably led to a similar solution of the problems connected with the granting of degrees. Like the two great London colleges the Indian colleges had schools for secondary education closely connected with them, and in many ways their early development was nearly parallel. In 1835 Thomas Babington Macaulay, who had imbibed his main ideas of university education from his father, and James Mill, and the other founders of University College, London, laid down in a famous Minute the ideas that marked the definite introduction of Western educational methods, and have had such a profound and lasting influence on Indian education. His policy was accepted, and he had a practically free hand in its carrying out, and the Indian Government henceforth maintained an absolute neutrality in religious matters and determined to further from public funds the maintenance of schools and colleges in which instruction should be imparted through the medium of English, and according to Western methods. Though the development of Oriental learning was also

to be encouraged, the drift of things inevitably gave a great predominance to subjects that would pay in Government examinations, and especially to literary and political studies.

The next steps forward in the march of Imperial education came in British North America, where, owing to controversies over the disposal of the Crown lands that had been set aside at an earlier date for the maintenance of the clergy, the spirit of emulation between the various religious denominations was particularly acute. Acadia College was founded by the Baptist denomination, at Wolfville, Nova Scotia, in 1838, and in 1840 it was incorporated by the Nova Scotian Legislature and received the power of granting degrees in Arts and Theology. In 1841, Queen's University was founded by the Presbyterian Church under a Royal Charter at Kingston, Ontario, with the object of giving a sound training in Arts and Theology, especially to candidates for the ministry. It naturally derived its inspiration from the University of Edinburgh, upon whose constitution its Statutes were modelled, and Scottish influence has always been particularly strong within it. But Queen's suffered very badly by the Presbyterian "Disruption" of 1843, and it was not until the greatest of its Principals,

George Monro Grant, a Nova Scotian of wide Imperial outlook, came to it in 1877 with a Glasgow University training, that it was firmly established in that career of high thinking and sound learning that makes its influence so powerful in Canada to-day. Bishop's College, Lennoxville, Quebec, was founded in 1843 under the control of the Anglican Church in the Province, and in 1853 received by Royal Charter the power of conferring degrees, while Mount Allison College, founded by the Wesleyans in 1843 at Sackville, New Brunswick, received the powers of a university by Act of Legislature in 1858.

Roman Catholic education in Quebec derives its inspiration and its form of organisation from entirely different sources to those that we have been considering, but the foundation of Laval University, Quebec, was contemporaneous with the forward movement in education in the English-speaking provinces and was probably furthered by it in an indirect way. The Seminary of Quebec dates back to 1663, in the time of French rule in Canada, and it has always been a very powerful body. In 1852 the Seminary determined to further the cause of higher education in Quebec by founding a university on the plan of the ancient University of Paris, and a

Royal Charter was obtained granting incorporation and the power of conferring degrees in the Faculties of Divinity, Law, and Medicine. In 1876 a Papal Bull was promulgated, giving to the university the widest privileges. Two other universities of the same type as Laval now flourish in French Canada, the University of Ottawa, which dates from 1849 and 1866, and Laval University, Montreal, which has sprung directly from Quebec.

In 1845, under the inspiration of a political group who were familiar with London precedents, an Act of Parliament was passed permitting the application of public funds for the foundation of non-denominational university colleges for the advancement of learning in Ireland. Pursuant to this Act, Queen's Colleges were established in Cork (1845), Belfast (1849), and Galway (1849), and in 1850 a Queen's University was set up by Royal Charter in Ireland for the purpose of examining the students of the colleges and granting degrees. The professors of the colleges were also professors of the university, but each college was autonomous after the London fashion, and the university was nothing in reality but an examining board. The arrangements were somewhat modified by a supplementary charter in 1864, and the

institution was superseded in 1880 by the Royal University of Ireland, but this still remained without proper university powers, and its system was regarded with scanty favour by the Roman Catholic hierarchy, and it did not achieve any notably greater measure of success than its predecessor.

By far the most important reforms of the period were those that took place in the ancient English universities. Oxford and Cambridge had awakened from their lethargy with the turn of the century, and there was a great stirring of intellectual energy within them that had reactions far beyond their borders. The Evangelical movement at Cambridge, under the prompting of Charles Simeon, and Tractarianism at Oxford, led by Pusey, Newman, and Keble, brought the universities back to the exercise of a real influence in national life. Acute controversies were aroused as to their old restrictive regulations, and as to the proper use by their colleges of their valuable endowments. A sign that a new era had arrived was the foundation for the first time in a distant part of the Empire of universities that derived a good deal of direct inspiration from Oxford and Cambridge. The University of Sydney, New South Wales, was founded by an Act of the State Legislature

in 1850, and it received the full status of a university by Royal Charter in 1858; the University of Melbourne was founded in 1853 by Act of the Victorian Legislature, and received its charter in 1859. In each case, though they followed the Edinburgh system of an active teaching professoriate, many of their best teachers came from Oxford and Cambridge, and provision was made for the establishment of colleges of residence in connection with different religious denominations. Their fine new university buildings were designed in close similarity to the Gothic foundations of the English university towns, and many features of social life derived their impetus from English colleges. The Australian institutions blended in their inspiration streams both from Scotland and from Oxford, but they drew little from the then fashionable schemes of university reformers in London.

The second period of university development in the Empire closed with an outburst of governmental activity in connection with higher education such as had never been known before, and has hardly been paralleled since. The controversies concerning Oxford and Cambridge culminated in 1850 in the appointment of Commissioners with ample powers to inquire into all matters concerning

them. Their investigations were thoroughly comprehensive, and in 1858, in the same session as that in which the Act reforming the Scottish Universities was passed, far-reaching alterations were authorised by Parliament. The mediæval statutes of the colleges were abolished, fellowships were thrown open to merit, and the effect of this was not merely to provide ample rewards for the highest academical attainments, but to place the governing power within colleges in the hands of able men, likely to promote further improvements. No religious tests were in future to be imposed on entrance to the university or on taking a bachelor's degree. The old universities were immensely stimulated by the reforms; they became under the new regime the regular recruiting ground for the professoriate of younger institutions, and thus they took up their rightful position of influence in the cause of university progress in the British Empire.

The reforms that were introduced in the Constitution of the University of London in the same session of 1858 were also of great influence in the universities overseas during the next forty years, but unfortunately that influence was the reverse of beneficial. Under the Constitution of 1836, the University of

London was a purely examining body that admitted to its examinations none but students who had attended the courses of certain affiliated institutions. While these were of the rank of the original colleges, University and King's, or of the great London medical schools, the system seemed sound enough, and to the Commissioners appointed by the British Government in 1853 to make an exhaustive inquiry into the government of India, and among other things into the Indian educational system, it seemed to be the latest device of educational statesmanship. The foundation of provincial universities in India was advocated by the epoch-making despatch of Sir Charles Wood of 1854, which was drawn up under the influence of Alexander Duff, and the London plan was adopted for their organisation for explicit reasons. It had the advantage of costing very little. It enabled all the existing collegiate institutions, whether Government or missionary, to be worked into the same scheme, and promised to provide a quite impartial mode of examination, Above all, it gave freedom to the mission colleges, the only colleges that had been provided by private enterprise, to carry on their work, in their own way, and offered them help from public funds for the secular side of their work.

The proposals were carried into effect in 1857, when the three Universities of Calcutta, Bombay, and Madras were founded, and in 1882 and 1887, when the Universities of the Punjab and Allahabad were set up, they were organised in the same fashion. These universities had practically no teaching functions, and little control over the many institutions that were affiliated to them. They concerned themselves solely with examinations, and to-day, to use the words of the University Commission of 1917-19, "despite many plans for its reform, the University of Calcutta has to deal with more than 26,000 students scattered over an immense province wherein communications are very difficult. The students of Bengal are all brought under the control of a single vast university mechanism, follow in each subject the same courses of study, read the same books, and undergo the same examinations." Such has been the ultimate development of the new system that was invented in 1836.

The adoption of the system of affiliation in India was coincident with its abolition in London. By 1858 the system of restricting the examinations of the university to candidates from certain approved institutions had entirely broken down, for approval had come to be

granted with such levity that a crowd of institutions of most diverse and even of obviously unsuitable sorts had been admitted to the privilege.[1] The very restriction that had been designed to secure for students the advantage of an academic training, led to a lamentable competition among the colleges in the direction of securing students for their particular class-rooms by relaxing the conditions on which the needful certificate for admission to the university examination was granted. The Crown, therefore, abolished all restrictions as to attendance save in the case of degrees in Medicine and Surgery. Despite their protests, the two great colleges, like other institutions, were quite divorced from the university, and the sole criterion for the granting of its degrees came to be success in its examinations, however attained. The fatal step was not taken for any default of warning from those who were most concerned. University College, in its address of protest to the Crown, said truly that the new charter would "supersede continuous and systematic study by crude preparation for an examination

[1] It does not seem possible to find out on what principle the Institutions were admitted to the privileges of affiliation in respect of the Faculties of Arts and Laws, though there appears to have been more care exercised in regard to the Faculty of Medicine. In 1836 there were two affiliated Institutions in Arts and Laws (Univ. and King's); in 1844, twenty-two; in 1858, forty-nine. In Medicine there were in 1840, forty-eight; in 1858, seventy-three.

and withdraw students from that 'regular and liberal course of education' which the University was established to promote." However, the protest, though amply justified by subsequent experience, was without avail. The new charter was issued, and this was the complete triumph of the so-called "External" system, which was to remain almost without alteration for nearly fifty years.

The precedent thus set had very great influence in the colonies, as we have already shown that they had in Ireland, and this is not even now entirely at an end. To trace all their ramifications is difficult, and could not fail to be tedious, and only a brief summary must suffice. King's College, Toronto, was founded and received a University Charter in 1827, but its inauguration was delayed until 1843, and its title was changed to "the University of Toronto" in 1849. In 1841 a college that had been established in 1836 by Royal Charter in connection with the Methodist Church obtained power to grant university degrees, and took the name of Victoria College; in 1853, Trinity College, Toronto, in connection with the Anglican Church, obtained a Royal Charter as a university, and thus a situation similar to that in London came into existence in Ontario.

The University of Toronto was in consequence reorganised as an examining and degree-conferring body on the model of the University of London, and it so remained from 1853 to 1887. The University of Manitoba was established by Act of Legislature in 1877, with the sole power of conferring degrees in the province in all faculties but Theology. It remained almost entirely an examining and degree-conferring body until 1900. At the Cape of Good Hope a Board of Public Examiners in Literature and Science was established in 1858 which granted certificates equivalent to degrees, and in 1873 its powers were transferred to the new "University of the Cape of Good Hope," which in 1875 was empowered to hold examinations throughout South Africa, and received a Royal Charter in 1879. It was closely modelled on the lines of the University of London, and remained outwardly unchanged until the great South African university reforms of 1916-18, with which we shall deal later. In New Zealand a situation arose that was very similar in its causes and outcome to that in London and in Ontario. In 1869 a group of Presbyterians of Scottish training founded at Dunedin the first place of higher education in New Zealand, and by Ordinance of the Provincial Legislature

it received power to grant degrees in Arts, Medicine, and Law. The University of Otago was opened in 1871, but before it had entered on full university functions, an examining university was set up in 1870 by Act of Legislature, and another college with similar aims to Otago was founded at Christchurch in 1873, largely under Anglican inspiration. It appeared contrary to public policy to have two degree-granting institutions in such a comparatively small community as New Zealand, and in 1874 the University of Otago agreed to leave its powers as to degrees in abeyance, and an Act of Legislature was passed fully organising the State-controlled University of New Zealand on the London model. It was expressly declared that "the University is not established for the purpose of teaching, but for the purpose of encouraging the pursuit of a liberal education by the award of academic degrees." It grants degrees, however, only to undergraduates of the colleges affiliated with it, but they need not attend any special courses if adequate reasons can be shown. Two new colleges have since been founded and have received modest endowments, Auckland University College (1882), and Victoria College, Wellington (1897). The life and methods of each of the New Zealand

colleges is very similar to that of an English university college that presents its students for the external degrees of the University of London.

Besides the various Acts of Parliament that have been mentioned as having been passed in 1858, an important enactment was made concerning medical education in the United Kingdom. The "General Medical Council of Medical Education and Registration" was established "to enable persons requiring medical aid to distinguish qualified from unqualified practitioners," and to this end the "Medical Register" was prepared, on which no person's name would be inscribed who had not obtained a diploma or licence by examination in a university, or by one or more of the Royal Colleges and Apothecaries' Halls. The council received powers to secure the withdrawal of the privilege of granting registrable qualifications from any institution by which their requirements were not satisfied, and they could thus ensure that the licensing bodies would preserve a proper standard of examinations. Among their requirements the council at once demanded an examination in general knowledge before the commencement of medical study, and at a later date preliminary examinations in Natural Science were also

introduced. By regulations such as these, the General Medical Council succeeded in the course of a few years not only in bringing a higher standard and greater uniformity into medical education, but also in pointing to other professions the way towards the securing of well-educated recruits for their ranks. Thus the Medical Act of 1858 has had a great effect on other than medical education, and may fairly be placed alongside the other great enactments which made 1858 a year of vital importance in the development of higher education.

Arms of

Quebec. Ontario. Nova Scotia.

CHAPTER III

THE TYRANNY OF EXAMINATIONS AND THE RISE OF THE SCIENCE COLLEGES, 1858-1900

THE roots of the great movement that has made the third period of university development so splendidly fruitful can be traced right back to the last years of the eighteenth century. They took their rise in the desire of the labouring classes for a knowledge of the great discoveries of science. About 1794 John Anderson, Professor of Natural Philosophy in the University of Glasgow, invited working men to attend his course on Experimental Physics in the University, and at his death in 1796 he left his property to found an institution to further the application of science to industry. In 1799, a young Englishman, George Birkbeck, who had recently graduated in medicine, was appointed to hold a Chair of Natural Philosophy in the new college. He delivered lectures there to crowded audiences that were mainly composed of mechanics, and when he left Glasgow for

London in 1804, the classes continued to flourish for a time, but the Andersonian Institution gradually lost its working-class clientèle, and in after years developed into a medical school of the ordinary type, with scientific and technical classes attached. It has now been merged into the Royal Technical College. The first twenty years of the nineteenth century saw the growth in many parts of industrial England of so-called "mutual improvement societies." These derived an impetus from the great educational movement that was in progress for the training of young people who were being taught in Sunday schools, day schools, and evening schools, not only in the ordinary subjects, but also in a smattering of the principles of natural philosophy and political science. The "mutual improvement societies" led in their turn to the foundation of institutions partly social and partly educational, where access could be had to the lectures of experts in the new subjects. The first Mechanics' Institution was opened in Glasgow in 1823 as a derivative from Dr. Birkbeck's lectures in the Andersonian Institution: like that institution, it has ultimately been merged in the Royal Technical College. London followed close, and in the same year, 1823, Dr. Birkbeck

convinced a great meeting of all classes of the advisability of founding a London Institute, where men of the mechanic class might find access to all the treasures of science and of art, and might cultivate their minds without losing touch with the things of their working life. His ideas were philanthropic in the highest sense, and attracted great enthusiasm. What has now, a century later, become Birkbeck College[1] in the University of London was started at the meeting, and at once secured a large membership.

In the course of the next few years, Mechanics' Institutes were founded in most great towns, and for a time they flourished. But before 1860 they had declined in most parts of the country into complete sterility as far as working-class education was concerned, and had become merely social clubs for the lower middle classes. Our interest is specially concerned with one of them, the Mechanics' Institute in Manchester, founded in 1824. For a time its classes were confined to their original purpose of "enabling mechanics and artisans, of whatever trade they may be, to become acquainted with such branches of

[1] The Birkbeck Institution has never lost its original character, and though its teaching is now of the university rather than the technical type, it is carried on almost entirely in the evening for persons who are occupied during the day.

science as are of practical application in the exercise of that trade, that they may possess a more thorough knowledge of their business, acquire a greater degree of skill in the practice of it, and be qualified to make improvements and even new inventions in the arts which they respectively profess." But these high purposes of technical education were destined to disappointment. Within a dozen years of its foundation the number of mechanics in its classes had dwindled to a small minority, and it came to do little technical teaching of any sort to the members of the tradesman and small clerk class who mainly frequented it. By 1860 the Institute had sunk into a lethargic state and had quite lost touch with its original purpose, but it was aroused in 1879, and, reviving under J. H. Reynolds as a real Technical School, became the nucleus of the great Manchester College of Technology of to-day. Meanwhile, higher education in Manchester was making a start in another direction. In 1846 a wealthy citizen, John Owens, bequeathed £96,000 to trustees for the foundation of an institution where young men who could not afford the expense of Oxford or Cambridge might be instructed "in such branches of learning and science as were then or might be hereafter usually taught in English

universities." Owens College was opened in 1851, and for many years its students took their degrees in the University of London, side by side with the students of the great London colleges, upon whose pattern it was closely modelled. It attracted further benefactions, and in 1872 the Manchester School of Medicine was united with it, and medical students took their preliminary work in science in its classes.

Fresh interest in university reform was aroused in the seventies by the work of two commissions on Oxford and Cambridge, whose reports were carried into effect in 1877. All clerical restrictions were abolished, general and uniform regulations as to the appointment and payment of fellows were enforced, and the colleges were made to contribute from their revenues to the upkeep of the university and to the re-endowment of a reorganised professoriate. The organisation of the older universities was thus brought into its modern shape. The discussions in the press and in Parliament that accompanied these reforms naturally stimulated higher education elsewhere, and in 1877 the authorities of Owens College made petition to the Crown for the grant of full university powers. Yorkshire College, Leeds, having been founded in 1874,

had just begun work in the teaching of science and technology, and a new University College was also projected in Liverpool. It was therefore suggested that if the new university were established, these colleges should be associated with it instead of sending their students to take London degrees. After much discussion, a charter was granted in 1880 to the "Victoria University of Manchester," and in 1884 there was admitted into it in a federal relation University College, Liverpool, which absorbed the Liverpool Medical School in the same year. Yorkshire College, Leeds, was united with the Leeds Medical School that had been founded in 1831, and in 1887 it, too, became part of the federal Victoria University.

The University of Durham saw a somewhat similar development into a federal institution under the impulse of the desire for training in science that was aroused among the people of the great industrial district along the Tyne. A College of Physical Science was founded at Newcastle in 1871, and in the following year the Medical School that had been at work since 1832 was incorporated with the University of Durham. The university, therefore, came to consist of three associated but autonomous institutions each almost confined to a particular Faculty, as in certain Continental

universities; Arts and Theology at Durham, Science, including Engineering and Technology at Newcastle, and Medicine in a separate college, also at Newcastle. There was some modification of the system when, with an increased endowment, the College of Science became Armstrong College in 1904, and courses in Arts were started, but generally the system remains, and Durham University is a loose federation of colleges which have full control of their finance, of the appointment of their own staffs, and of all teaching and discipline.

University College, Bristol, dates from 1876, and, like Durham, affords an example of Arts preceding Science, for its associated institution for the study of science and engineering, the Merchant Venturers' College, was not founded until 1885. But whereas the Arts departments at Bristol remained feeble, the Science college rapidly attained success. University College, Dundee, was founded as a science college for that industrial centre in 1880, and it was only brought into close association with the neighbouring university of St. Andrews in 1897. The Mason Science College, Birmingham, was projected in the seventies and fully founded in 1880. Arts departments were gradually added, and in 1882

the college took over the training in science of the medical students in Birmingham who had previously been attached to the moribund Queen's College. Firth College, Sheffield, was founded in 1879 as a science college, and had a somewhat chequered history until it was re-endowed and incorporated by Royal Charter as a full university college in 1897. University College, Nottingham, began as a science college in 1881, and University College, Cardiff, in the same way in 1883.

Within a little more than ten years, therefore, England, which in 1870 was still badly deficient in opportunities for higher education, was provided with a university college in almost every part[1] of the country save in East Anglia. The candidates from nearly all of the newly founded English colleges took the external degrees in science of the University of London, and, flocking into the teaching profession in great numbers from about 1890 onwards, they staffed the newly-founded secondary schools and polytechnics or technical schools that were being started in all the industrial parts of the country. We have already mentioned the parallel growth of the university

[1] In addition to the Colleges mentioned above, weaker institutions of a similar sort came into existence in Southampton and Exeter. University College, Reading (1892), derived its inspiration from different sources.

colleges in South Africa and New Zealand in the same period, which were much influenced by the English example. University development in Canada and Australia was only slightly influenced, and took different courses. India saw an unexampled growth of colleges from 1879 onwards, but they were little touched by the desire for science teaching, and their progress must be regarded as a separate phenomenon.

The last quarter of the nineteenth century saw a great increase in governmental interest in scientific education in England, and a lavish outlay on laboratories and technical equipment in all parts of the country. This sprang from the so-called Science and Art Department which was founded in 1853, and elaborated an immense system of rigid external examinations held in every part of the country. The papers were of a lower grade than those of the University of London, but they were set by men with a very similar outlook, and contributed an additional buttress to the external system. At the centre of the machine was a government supported and government-regulated college in London, the Royal College of Science, closely associated with the Royal School of Mines. The Royal College of Science is directly descended from the

"Government School of Mines and of Science applied to the Arts," which was opened in 1851, but it also descends from the Royal College of Chemistry, founded privately in 1845 and transferred to governmental control in 1853. The two colleges were merged at South Kensington in 1872, and in 1881, under the inspiration of Huxley, its name was changed to "The Normal School of Science." While the technical character of the School of Mines was preserved, the principal object of the school was announced as "to train teachers of science classes," and, consistent with this primary object, other students might take advantage of its facilities. Thus the school ceased to be purely technical, and was started on its career as a university college with but a single, lavishly-equipped faculty and little of the broad outlook on knowledge that is characteristic of a strong college of many faculties. Near by there was founded in 1880, with a large endowment from public sources, another college of a purely scientific and technological character, the City and Guilds Engineering College, and for some years these institutions, though they did much valuable work, undoubtedly warped the system of higher education in London and in England generally too far in the direction of physical

science to the detriment of the colleges that had a fuller curriculum. The foundation of publicly endowed polytechnics in various parts of London in the eighties and nineties did much to aid the same unfortunate tendency, for while they were not very successful in their technological teaching during their earlier years, they found an outlet for the efforts of their teachers by becoming cheap colleges for the poorer aspirants for degrees in natural science, and thus added to the crowd of external London candidates.

Practically all the university colleges that were founded between 1870 and 1910 followed the example set by the University of London in 1878 in admitting women students on an equal footing with men. The greatest influence on the education of women came not from them, but from other specially founded colleges that derived their inspiration from different sources. The first of these colleges was Bedford College, London, which was opened in 1849, but in its early years its influence was not very great, and it was not until Girton College (1869), and Newnham College (1871) were founded in Cambridge, though not as parts of the university, that much progress began. University College, London, admitted women to some classes in

1871, and in 1878 to the whole of the Faculties of Arts, Laws, and Science. Lady Margaret College (1878), and Somerville College (1879) in Oxford came next, and they were followed by Westfield College (1882), and Royal Holloway College (1886), near London. Their precedent of segregation was not much followed in the Dominions, which preferred the system of co-education. Huguenot University College, Wellington, Cape Province, which originated as part of a larger institution in 1874, was incorporated as a university college for women in 1907, and seems to be the closest follower of the English example.

The high-water mark of the movement for ultra-rationalistic and scientific teaching was reached in London about the middle of the nineties. University reformers in the English provinces and the Dominions had not only been frightened at its cost in lavish buildings and equipment, but they also saw danger in its deadening uniformity and narrowness of outlook. The best teachers in the university colleges came to regard the University of London as something to be avoided, and its system of external examinations as a pernicious example for any newly-founded university. The narrowly scientific tendency and the love of rigid examinations among governing bodies

ebbed rapidly after 1895, and a new era began. Revulsion from the examination fetish was a gradual process that began at different times in different parts of the Empire, and has not yet entirely succeeded. It was stimulated most where there were evils that it was impossible to ignore.

The Legislature of Ontario in 1887 was the first to pass a university measure that brought back teaching into its proper place of honour. The condition of higher education in Ontario at the time was undoubtedly very bad, for there were five or six small competing colleges that had the right of conferring degrees, and none of their degrees had any particular value. To express the ideas that appear to have been in the minds of the promoters of reform, we may employ phrases that were used in similar circumstances on a later occasion. "The stress that has been laid upon the degree, and even upon the commercial value of the degree, is a sure indication of the injury that education has suffered through divorce of the functions that should always be united, and from a system that entrusts the higher function—[that] of teaching, to the inferior body, the college, and the lower function—[that] of the examining to the superior body, the university. So long

as the university takes no share in imparting knowledge or in extending knowledge, but confines its work to testing knowledge—so long it is inevitable that in the eyes of the student and in the eyes of the world, the parchment diploma, the marketable qualification, rather than the acquisition of knowledge and the discipline and development of the mind, should be regarded as the essential and most important result of a university education." The desire to get a degree somehow had led to the organising of very incomplete universities with entirely inadequate means. They could not pay the salaries and would not offer the conditions of freedom that are sufficient to attract or retain teachers of the real eminence that a proper university professoriate demands. It was to remedy these, among other defects, that the Federation Act for Ontario was passed. Its provisions were drawn up under the influence of the Federal Charter of the Victoria University of Manchester, which was seen to be working satisfactorily. The Act was intended to bring together the college-universities of Ontario, with a view to raising the standard of education and making adequate provision to meet the demand for instruction in the sciences, for which, at that time, no one of the colleges had sufficient revenue or equipment. A School

of Practical Science had been established by the Provincial Government in 1877 very much on the same lines as the Royal College of Science in London, but it did not satisfy the demand, and was out of touch with the work in Arts.

The apparently complicated system that was introduced, though it has been somewhat amended, remains in its essentials as it was planned. In taking advantage of the Act, a college holds in abeyance its degree-conferring powers, with the exception of those in Theology, and becomes a Federated University of the University of Toronto. In the Faculty of Arts, the work of instruction is so divided that the University bears the burden of the more expensive departments, such as History, Political Science, Philosophy, and Mathematics, and provides for all the work in Natural Science. The colleges give instruction in Classics, Ancient History, and Ethics, and of course, in all theological subjects. Every student proceeding regularly to the degree registers in the university and enrols in a college. He attends the lectures of the university professors and lecturers without payment of fees, except for laboratory supplies. The University of Toronto now consists of the original nucleus, known as University

College, Victoria College (federated in 1904), with an Anglican theological faculty, and St. Michael's College (federated 1907), which is Roman Catholic. There are two smaller federated colleges which have never had university powers, Knox College (Presbyterian) and Wycliffe College, and there are also affiliated colleges in special subjects like dentistry and agriculture. That the Federation Act was successful in its aims is evidenced by the rapid rise in prestige of the reorganised university, and that its provisions were justified is proved by the fact that Toronto stands today so high among the universities of the Empire.

While the colleges belonging to other denominations have one by one joined forces with the university, the Toronto Baptist College remained outside the federation, and in 1887, having received a considerable endowment, took the name of McMaster University. It remains under the control of the Baptist denomination and does work mostly in Arts and Theology up to the standard of the Bachelor's degree. The third university in Ontario is the Western University of London, Ontario, which was incorporated by an Act of the Provincial Legislature in 1878 as a college in connection with the Anglican Church. In

that form its success was comparatively small, but in 1908 its government was reconstituted on an entirely undenominational basis; it received considerable grants from provincial and municipal funds, and is rapidly developing on the lines of a modern unitary university. The University of Manitoba was the only university in Canada besides Toronto to adopt the external system, but it has largely abandoned it, and since 1917 has been undergoing reorganisation on lines somewhat similar to those of Toronto. There are four affiliated colleges that have the power to confer degrees in divinity, St. Boniface (Roman Catholic), St. John's (Anglican), Manitoba (Presbyterian), and Wesley College (Methodist). They are affiliated round a central university endowed and partly controlled by the Government, in which there is an Arts and Science Faculty, and Faculties of Medicine and Engineering. Agriculture is provided for in an associated Agricultural College.

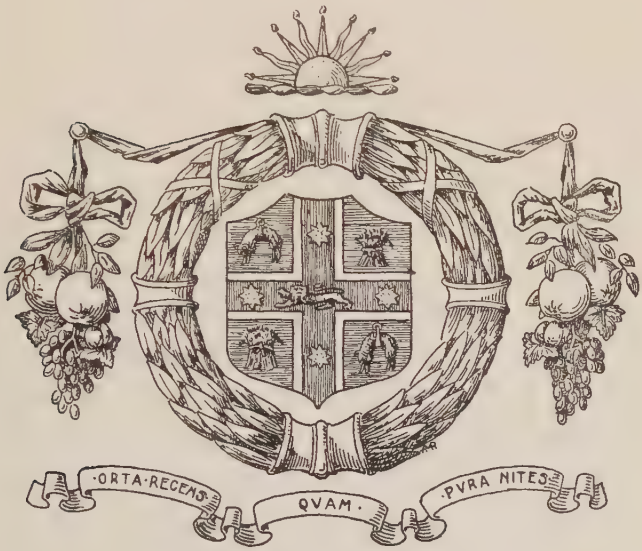
The last conquest of the external examination system was in the establishment of the Royal University of Ireland in 1880, and throughout the nineties its support from governmental authorities and prominent laymen was visibly on the decline. The condition of university affairs in London was patently

unsatisfactory, and the teaching colleges were always agitating for reform, and demanding that they should be given the power of examining their own students for degrees. After many unsuccessful attempts to reconcile powerful conflicting interests, and much Parliamentary manipulation, in 1898 a compromise scheme was brought into effect that was based upon the recommendations of a Royal Commission, presided over by Lord Cowper. The university was to be reconstituted "on such a basis as to enable it to carry out thoroughly and efficiently the work which may be properly required of a teaching university for London, without interfering with the discharge of those important duties which it had hitherto performed as an examining body for students presenting themselves from all parts of the British Empire." The scheme was brought into operation in 1900, and, though it gave to the university an excessively cumbrous and detailed constitution that is the despair of all those who have to work under it, it began the emancipation of the colleges of London from external control, and enabled them to direct their efforts in unison. Enormous improvements were almost immediately the result, but in 1910 the defects of the constitution had become so patent, that a new Royal

Commission was set up under the chairmanship of Lord Haldane to inquire into the possibility of its amendment. The commission reported in 1913, but the outbreak of war prevented anything being done to carry its recommendations into effect, and, technically, matters remain as they were in 1900.

In reality, a vast change has been accomplished. Whereas before the reconstitution the efforts of the teachers in the London colleges, who numbered amongst them some of the most distinguished scholars and scientists in the Empire, were thwarted at every turn by outside interference, in most faculties the professoriate has now become so united that it can proceed with its proper work with complete *Lehrfreiheit*. In 1898 the characteristic mental attitude of the eminent London teacher was a baffled sense of incompetence to do what he knew to be right for his pupils, and a detestation of the university and all its works. To-day that attitude has almost entirely disappeared, and its place has been taken by a kind of philosophic and humorous acquiescence in university organisation as it is, and a determination to make it work. For twenty years men have taken with a wry smile a pride in their efforts to place the University of London high among the great

places of learning in the world despite one of the most intricate university constitutions that can ever have been penned. Before 1900 the defective constitution of the University seriously affected London students; to-day it hardly affects them at all, and they are free to derive every benefit they can from the work of their chosen teachers.



Arms of New South Wales.

CHAPTER IV

THE FOUNDATION OF NEW UNIVERSITIES 1900-1923

THE lengthy discussion that preceded the reconstitution of the University of London had a very great influence in consolidating public opinion in England as to what a modern university should be, and greatly stimulated the desire of the provincial university colleges to achieve full autonomy. The real truth became evident to men of wealth and to leaders of great public influence like Joseph Chamberlain, who had the power and the means to enable their colleges to attain their ambition. That truth has been tersely put by a university administrator who knew both Oxford and London from the inside. "A university ought to be an autonomous self-governing corporation, with a constitution of such a character that the influence of broad-minded learning may be supreme. Its aim should be the creation of intellectual life, and the promotion of the highest form of teaching, side by side with original research and investigation. No doubt a university may make

mistakes; no doubt there may be controversy and dispute; but if the university is self-governing, these will be slight compared with the mistakes and inadequate ideals of government departments."[1]

The first of the newer university colleges to attain full university status was Mason College, Birmingham, which was incorporated by Royal Charter in 1900 as the University of Birmingham. The charter prescribed instruction in all branches of a liberal education, and such instruction especially as might be of service in the manufactures, commerce and industrial pursuits of the highly populous Midland area of which Birmingham is the centre. In 1903, Liverpool raised a great endowment for the establishment of an autonomous university, and as soon as the necessary Royal Charter was obtained, the connection between University College, Liverpool, and the Victoria University was dissolved, and the college was absorbed in the University of Liverpool. Leeds followed suit in the following year, the University of Leeds was established, and thus it was possible to reconstruct the federal Victoria University as the "unitary" University of Manchester, and to incorporate

[1] Headlam, A. C. (late Principal of King's College, London, and now Bishop of Gloucester), *Universities and the Empire*, p. 23.

Owens College with it. University College, Sheffield, was in a similar way merged in the University of Sheffield, constituted by Royal Charter in 1905, and University College, Bristol, in the University of Bristol in 1909.

There still remain certain English university colleges which are autonomous in teaching and discipline, but their students take the external degrees of the University of London. These are Reading, Nottingham, Southampton, and Exeter. It is probable that before many years have elapsed, the two first of these, with considerable accession of endowment, will be promoted to full university status, but the present system works fairly well, for the London examinations have been so re-modelled under the influence of the teaching university, and there is so much intercommunication that the prescribed curricula are no longer felt to be an insupportable burden. In science and engineering, credit is given for the course work of the students as in the great London colleges, so that a similarity of purpose pervades their work. The external system here seems to have found its true *raison d'être* in fixing standards and assessing results for university colleges that are still too weak to stand alone. The external candidates at the examinations of the University of London for

the first degree now come to a very large extent from the provincial colleges and the weaker provincial universities.

While a great movement for the foundation of new universities was rapidly going forward in England, similar movements were taking place in other parts of the Empire. The case of Wales was particularly interesting, for there the movement was coincident with a rising consciousness of nationality and with a literary revival that rekindled pride and interest in the culture of ancient Wales. The earliest Welsh college, St. David's College, Lampeter, was opened in 1827 under the inspiration of the Church. In 1852 it received the power of conferring the degree of B.D. and later that of B.A., but it had a hard struggle to keep going, and never aroused much enthusiasm. Proposals were made as early as 1854 to found Queen's Colleges in Wales like those in Ireland, and in 1863 a serious effort was made to establish a national university for which the University of London was to be the model, but nothing could be done. In 1867, however, under the lead of Hugh Owen, a start was made in collecting subscriptions to found a new teaching college, and in 1872 it was opened at Aberystwith as the University College of Wales. In England the need for a greater

knowledge of natural science and its practical applications preceded the consciousness of the need for the highest instruction in history, philosophy, or literature, and in nearly every case the development of the modern English universities is the gradual evolution of a complete group of faculties in institutions originally founded for the pursuit of science and technology. The line of development in Wales has been different. Like Aberystwith, the other two colleges that followed it, the University College of South Wales, Cardiff (1883), and the University College of North Wales, Bangor (1885), were founded and designed to be general centres of liberal education. Work in science on any considerable scale was only gradually added. Government grants were made to the colleges towards their annual maintenance, and they attracted round them a great deal of local patriotism. From the beginning, their fees were very low to meet the needs of the poor students from all parts of what was then a very poor country.

The colleges laboured under one great disadvantage in their dependence upon the external examination system of the University of London, for whose degrees, in the absence of a Welsh university, their students were

mainly prepared. Some of the teachers felt that their work was most seriously hampered by a system of examinations imposed upon them from without and unrelated to their teaching, and the clear recognition of this by the college authorities, together with an increase in popular self-confidence, arising from the successful establishment of three national colleges, combined to favour the movement for a national degree-giving university. That movement, however, had to pass through many difficulties, and it was not until 1893 that it succeeded and a Royal Charter was obtained. Opinion had been sharply divided as to the constitution of the new University of Wales, the one party holding that the example of the University of London should be followed and the degrees thrown open to any one who could pass its examinations, so as to extend its influence over as wide an area as possible, and to penetrate to the poor students who could not afford to go to a Constituent College. The other party held that the value of a university degree consists in its guarantee of a training under university teachers, and that the National University ought to confine its degrees to students who had been through an approved course of training in its constituent colleges. This second view prevailed

in the end, though it was contested by the zealous advocates of externalism at every stage, even to the last debate in the House of Commons. The University of the charter was a federal university which seemed to meet the needs of several colleges so widely separated as to find intercommunication difficult and costly. It also satisfied a national sentiment that inclined strongly to union in a single national organisation. It was constructed largely on the model of the Victoria University, whose system in 1893 was not so irksome to its constituent colleges as it became a few years later. Three colleges were originally included, Aberystwith, Cardiff, and Bangor, but the Crown was given power to include other colleges by supplemental charter, and this power has been exercised in favour of University College, Swansea, incorporated in 1920. The university was not permitted to grant degrees in medicine, and till 1894 there was no provision for medical teaching in Wales. A Medical School was founded in that year in Cardiff for the first years of the curriculum in medicine; in 1906 the power of conferring medical degrees was granted to the university, and in 1921 a well-endowed "Welsh National School of Medicine" was opened in connection with University College, Cardiff,

enabling provision to be made for complete courses for medical qualifications.

The development of the Welsh colleges after 1893 was rapid, but the university constitution proved unsatisfactory in its working in many ways. Welsh sentiment had hoped to find in the university the highest available symbol of national unity, but after more than twenty years' experience it was said that the colleges were very far from exhausting their possibilities for good for the people of Wales. The people and the colleges seemed to have lost touch with one another, and of the university men knew very little. On the academic side, however, the university was only too well known. It was in the main a board for the regulation of examinations and the approval of schemes of study, and it had exercised those functions in such an unsatisfactory and cramping way as to produce a serious demand for its disruption, and the setting up of three independent universities. The demand on all sides for increased grants afforded the Government the opportunity to bring pressure to bear for reform, and in 1916 all the parties agreed to the appointment of a Royal Commission to consider in what respects the organisation of university education in Wales could be improved. The Commissioners,

under the presidency of Lord Haldane, reported in 1918, and in 1920 a Supplemental Charter was granted embodying the changes they recommended. The colleges were given a larger freedom in the control of the courses of study and in the conduct of their own examinations for initial degrees, and large grants were provided from the funds of the local authorities throughout Wales and Monmouthshire. Many new devices of organisation were introduced by the Commissioners, for they were convinced that the ordinary federal type of university had been tried and found wanting. Their design was at the same time to liberate and assist the colleges, and to frame the organisation of the university in such a way as to enlist in its service the fervour of the Welsh zeal for education, and the strivings of the Principality for national unity. They felt that "that system of education is most desirable for Wales, which, while preserving the national type, improves and elevates it, and at the same time gives opportunity for the development of any literary tastes or intellectual aptitudes which may be characteristic of the nation." Into the devices that were adopted it is impossible here to enter,[1]

[1] For the scheme in detail and its justification, see the Final Report of the Royal Commission on University Education in Wales. Parliamentary Paper Cd. 8991 (1918).

but the whole case is interesting as showing how the important truth is coming to be recognised that universities have infinitely more important functions to fulfil than as mere professional schools. They must be the highest expression of the national life on the intellectual side.

Two similar comprehensive schemes of national university reform were closely contemporary with that in Wales, in the Union of South Africa, where the movement began in 1904 and its purpose was accomplished in 1916, and in Ireland, where radical reforms were effected in 1909. The University of the Cape of Good Hope was founded in 1873 as mentioned above, strictly on the lines of the examining University of London. It had no constitutional connection with the colleges that prepared students for its examinations, but by a gradual process the governing body of the university came to contain a very considerable proportion of teachers from the colleges, who naturally wielded a large influence in its deliberations. Victoria College, Stellenbosch, was founded in 1874, and this institution and its older rival, the South African College at Cape Town, were the most important centres of intellectual influence in the sub-continent. The Transvaal Technical

Institute at Johannesburg (including the Kimberley School of Mines founded in 1896) added Arts work in 1906, and became the Transvaal University College[1] with an increased endowment. University College, Pretoria, was founded in 1908, and Natal University College in 1909.[2] The problem of reform, therefore, became much more pressing than it had been at an earlier date, and an Inter-Colonial Conference on University Education in 1908 reported in favour of a new federal scheme, without result. But large fresh endowments were provided, and a Commission that sat in 1913-14 at last produced a new plan that showed what lines of development were possible without prejudice to the many vested interests, the existence of which constituted an almost insoluble problem. The solution they proposed was not accepted by the two oldest and strongest colleges, and therefore failed. The ultimate solution was reached by Parliamentary discussion, and Acts were passed in 1916 that provided for great changes that came into effect in 1918. A further Act was passed in 1921, and this

[1] This name has since been transferred to the College at Pretoria.

[2] Potchefstroom University College, "Het Potchefstroom Universiteits Kollege voor Christelik Hoger Onderwijs," was fully organised in 1919 after the changes that are described above. It developed out of the literary department of the Theological School of the Dutch Reformed Church, founded in 1869.

completed the series of reforms that have given to South Africa four universities. The South African College ceased to be connected with the federal university, and was incorporated in the new unitary University of Cape Town, to be rehoused in new buildings; the Victorian College, Stellenbosch, became the University of Stellenbosch; University College, Johannesburg, became the University of the Witwatersrand with considerably increased endowments; and lastly, the old federal University of the Cape of Good Hope became the University of South Africa, with its seat at Pretoria, and having as its constituent colleges all the remaining university colleges in the Union.[1]

The Irish situation was in some respects similar to that in South Africa and in Wales, but it had a longer history, and was considerably complicated by religious difficulties. Neither the University of Dublin (consisting of a single college, Trinity), the Queen's University, nor its successor, the Royal University, had ever been fully accepted by Irishmen of all shades of opinion. Trinity College was free from tests, but was little resorted to by

[1] Grey University College at Bloemfontein; Huguenot at Wellington, C.P.; Natal at Pietermaritzburg; Rhodes at Grahamstown; Potchefstroom; and Transvaal University College at Pretoria.

Roman Catholics, and still less by Presbyterians; the Royal University was a purely examining body whose degrees were prepared for by three Queen's Colleges, a Catholic college in Dublin called the Catholic University, and by many private coaching establishments. The Queen's Colleges in Cork and Galway were admittedly failures, and it was agreed on all hands that some drastic reform must be undertaken. Federal schemes were suggested by the Government, but failed to arouse support, and finally in the session of 1908 a far-reaching measure was introduced into Parliament and passed with a considerable measure of assent among all parties. The Government allocated very large amounts from public funds to enable the new arrangements to commence under favourable circumstances, and many of the predictions of evil of the opponents of the reforms have luckily been falsified by results. The University of Dublin and Trinity College remained untouched, and in 1911 the powers of making statutes for their government were transferred from the Crown to the Corporation of the University. The Royal University of Ireland and Queen's College, Belfast, were dissolved. A new university, Queen's University of Belfast, was created, and the work of the old university

college was absorbed into it. In Dublin the National University of Ireland was constituted as a federal university by Royal Charter, and the equipment and offices of the old R.U.I. were transferred to it. A new university college was opened in Dublin, and absorbed the equipment of the privately organised body known as the Catholic University. The Queen's Colleges in Cork and Galway were reformed and re-endowed, and became known as University Colleges. Along with University College, Dublin, they constitute the National University, which also has an affiliated college, St. Patrick's College, Maynooth, whose courses are recognised as leading to the degree in Arts, Philosophy, and Science.

The old examining universities that still remain are now few in number. They comprise only the University of New Zealand, and certain institutions in India. Strong agitation has gone on in New Zealand for a reform of the system, which has there been even more external than elsewhere. In many cases the papers set to candidates for degrees were drawn up by examiners in Great Britain, and the answers sent to be marked by them, a method not merely involving extreme delay, but one of the most uneducative sort. Needless to say, the best teachers in the university

colleges in New Zealand have felt crippled and gagged, for their best efforts to build up university teaching suited to the particular conditions of the Dominion have been unwittingly thwarted on many occasions by examiners in England who themselves detest the system. Agitation for reform on past occasions has failed owing to the opposition of lay members of the University Senate, but sounder views of what higher education needs are gradually making their way.

The real preserve of the examining university is still to be found in India, though universities of the modern sort are now being founded there. A commission was set up as early as 1882 to inquire into the working of the system of education introduced by Sir Charles Wood's despatch of 1854, and in the resolution appointing the commission it was stated that "It is not, in the opinion of the Governor-General-in-Council, a healthy symptom that all the youth of the country should be cast, as it were, in the same Government educational mould. Rather is it desirable that each section of the people should be in a position to secure that description of education which is most consonant to its feelings and suited to its wants." The dread of dragooning the whole system of higher education after the Prussian fashion

led the authorities too far in the opposite direction, and made them too lenient in admitting private enterprise for the sake of gain as capable of giving university teaching. From 1882 onwards there was, especially in Bengal, a great increase of the number of persons desiring Western education, and a result of the new policy was to stimulate the establishment of private colleges that professed to give training for university degrees. They made a profit for their proprietors by the payment of exiguous salaries to their teachers and by the avoidance of subjects of study that necessitated costly equipment. One of the outstanding features of all these colleges was that, while, like all the well-run missionary and Government colleges, they gave English education, unlike them, they gave it without the aid of Englishmen, and their students rarely or never had any contact with any one who spoke as his native tongue the language in which all their studies were conducted. The work was the cramming of the pupils with unappreciated information, and could not properly be called education at all.

The rapid development of colleges and the increasing flood of candidates for degrees, imposed a strain upon the examining universities

under which their system broke down. The Senates, in which all powers of the universities were concentrated, had been swollen by the addition of political members often for purely honorific reasons, and having no interest in academic work, but the teachers hardly ever had an opportunity of making their voices heard. Even the nominally academic bodies, such as Boards of Studies, which were responsible for drafting schemes of study, were appointed by the Senates from among their own numbers, and contained only a very small proportion of men who were actively engaged in university work. Needless to say, the same evils resulted as those that had broken down the system of affiliation in London in the middle of the nineteenth century. There was no adequate consideration before a college was affiliated of its general fitness to undertake the work of higher education, no requirements were made as to the proper supervision of discipline, and the evils that resulted from the flocking of students to great centres of population threatened alarming moral and social consequences. Thus, while the universities were so organised as to do nothing either for the advancement of learning or the provision of efficient teaching, they also did nothing directly to help the colleges, to which these

functions were left, in dealing fairly with their students.

It was obviously urgent that the university system should be overhauled, and the changes made in London as a result of the Act of 1898 had an inevitable influence in India, where the conditions seemed to be similar. A commission was therefore appointed in 1902 to consider the whole question of Indian university education, and its report was undoubtedly greatly influenced by the London policy, which, as in 1857, seemed to be the latest word of educational statesmanship. It was peculiarly unfortunate that the great university reforms that were pending in the north of England were unanticipated by the commission, and so had no influence. No fundamental reconstruction or change of principle was recommended by the commission; it assumed the permanent validity of the existing system of external examination and affiliation, and merely set itself to improve and strengthen it. The Universities Act of 1904 was designed to give effect to the findings in regard to the reorganisation of the government of the universities, their assumption of teaching functions mainly in post-graduate work, and the more effective supervision by them of the conditions of affiliation and of the colleges. The main

result of the Act was to make the control and influence of the Government over university policy more direct and effective than it had hitherto been, but, unfortunately, it also led to an artificial division between the "higher," or research and post-graduate work undertaken by the universities, and the "lower" work of the undergraduate teaching that was left to the colleges. Thus the colleges lost some of their best and most active leaders by promotion, and the gap between college and university was made even wider than before.

While these reforms were being worked out, an important movement for the foundation of universities of a type as yet untried in India was making headway among the leaders of religious and social thought. As a result of this movement, a teaching and residential Hindu university was founded and endowed by private Hindu benefactors at Benares in 1916. Its main purposes were stated to be those of "making provision for imparting education, literary, artistic and scientific, as well as agricultural, technical, commercial, and professional, of furthering the prosecution of original research, and giving instruction in Hindu theology and religion, and of promoting the study of literature, art, philosophy, history, medicine, and science, and of

imparting physical and moral training." Its organisation follows that of modern English provincial universities, but it is strictly Hindu in character, for of the Court, the governing body, every member, and of the Senate, the academic body, at least three-fourths must be Hindus.[1] Colleges of Oriental learning and theology, and a training college were added to the original "Arts" college, the Central Hindu College, Benares, in 1918, and a College of Engineering in 1919. The University of Mysore was the next unitary university to be founded. It began in 1916 with two constituent colleges which had originally belonged to the University of Madras, and a women's college and engineering college have since been added. The organisation is similar to that of a modern English university. The Patna University, founded in 1917, retains considerably more similarity to the earlier Indian type, and most of the teaching is conducted in "admitted" colleges. In 1920 the Mohammedan Anglo-Oriental College at Aligarh, founded in 1875, became a unitary residental university as the "Aligarh Muslim University." It is chiefly Muslim, and special attention is paid to Muslim theology.

The experience of the working of the Act

[1]This includes representatives of the Sikh and Jain communities.

of 1904 clearly proved that it had not gone far enough to grapple with the most serious evils affecting Indian higher education, and therefore a new Commission was set up in 1917 to inquire into the affairs of the University of Calcutta, but also to make an exhaustive re-examination of the foundation, structure, and working of institutions for higher education in India generally. The Commission reported in 1919, and recommended far-reaching and fundamental changes. These have not yet been carried out in their entirety, for many vested interests that have grown up round the old system have been attacked, and their resistance to reform has proved extremely persistent. However, new universities have been set up of the unitary, residential type at Lucknow and Hyderabad in 1920, and at Dacca in 1921. Rangoon in Burma also saw the organisation of a residentiary university in 1920, and the inclusion of two constituent colleges that had previously been working independently and preparing students for the examinations of the University of Calcutta.

Perhaps the most interesting of the new universities are those of Aligarh, which was mentioned above, as a Muslim parallel to the Hindu University of Benares, and the Osmania

University of Hyderabad. This latter institution differs from the other universities of India in that instruction, though it is concerned with Western learning, is imparted through the medium of Urdu, the official language of the native state of Hyderabad. The books needed for preparation for examinations up to the first degree have been translated into Urdu in bulk. English, however, is taught as a compulsory second language. There is a faculty of Muslim theology, and the professoriate consists of men of Muslim faith. The University of Dacca in Eastern Bengal also devotes special attention to Islamic studies, and to the needs of the Mussulman community, but it is open to all, and makes large provision for Hindus. It is to be of the unitary and residentiary type, and the scheme was designed by the commission to be a model of what an Indian university should be. It is interesting to note that the late Academic Registrar of the University of London, who was instrumental in developing that university after its reorganisation, has been largely responsible for the Dacca scheme, and is the first Vice-Chancellor of the new university. It will be differentiated from other universities in more than its organisation, for it will have a higher standard of entrance test, which is to

be equivalent to that of the present intermediate examination of other Indian universities, and it will give a four years' course in Arts and Science beyond that standard. The experiment is an exceedingly interesting one, and may have very important results on Indian education.

Arms of Hon. East India Coy.
Granted 1698.

CHAPTER V

UNIVERSITY DEVELOPMENTS IN THE MOST RECENT PERIOD, 1900-1924

It is a far cry from the troubled waters of the Indian universities to the calmer regions in which the Australian institutions of higher education have been gradually developing. Sydney, Melbourne, and Adelaide from their foundation have never needed to suffer any organic change, and have in every decade received a steady flow of benefactions and a widening influence. The English university movement since 1900, with its increase of governmental assistance, has had its echo in Australia, where the State has come to play a much more active part in higher education, and has been willing to provide large grants to further university growth rather after the pattern of Western States of America. The University of Queensland was founded at Brisbane by an Act of the State Legislature in 1909, and the University of Western Australia at Perth in 1911, and opened in 1913. The University of Tasmania had been

founded in 1890 by Act of Legislature, but was on a very small scale until 1915, when it received a Royal Charter. It is supported to a very large extent by grants from the State Treasury. These new universities are all distinctively of Australian type, and have derived their inspiration from Sydney and Melbourne, but they have also been influenced in many ways by the experience of the English provincial universities, and, like the newer of them, are perhaps, with the exception of Tasmania, stronger on the Science side than in Arts subjects.

State action in the Dominion of Canada in the period since 1900 has played a very important part in the founding of universities, and it has been very largely influenced by the precedents set in the neighbouring states of the republic, like Michigan, Illinois, and Wisconsin. Earlier attempts had been made to support various colleges out of government funds, but as these colleges were always sectarian in character the grants were attacked by those who were opposed to each particular sect. They really embittered strife and wasted resources, and at length, in self-defence, the State had to assume control. The colleges that became governmentally supported were controlled through a department of the Civil

Service, a method that still prevails in regard to the agricultural colleges in Nova Scotia, Ontario, and Manitoba, but it was contrary to the strong British tradition of university freedom, and it led to well-founded suspicions of political patronage. In 1906, therefore, a new Act of the Legislature of Ontario was passed, granting full academic freedom to the University of Toronto, and its pattern was followed later in the Provinces of Manitoba, Saskatchewan, Alberta, and British Columbia. The three latter provinces had no universities, and the respective Acts established them according to plans closely resembling that of the University of Michigan, one of the oldest and best of the State universities in the United States. The details of the arrangements, that had to be made, varied somewhat according to the previous educational history of the province, but between 1906 and 1910 the universities were fully organised as unitary teaching institutions, with a strong interest in extra-mural work. The freedom of the university from both political and sectarian influence is secured by placing its financial and administrative government in the hands of an independent Board of Governors, and by appointing a President, who, with the aid of the Senate, is responsible for academic

appointments and arrangements. The plan follows American precedents closely in granting larger academic powers to the President than an English university would ever accord to its Vice-Chancellor. Some difficulties have arisen as to the comparatively small powers of the professoriate in university government, and there would appear to be something of a clash of the British or Eastern Canadian university ideal, as seen in McGill and Queen's, and the American ideal of presidential autocracy. However, these Canadian State universities have already done an immense amount of good during the short period of their existence, and they are already among the most respected public agencies of their provinces.

During the period of rapid growth of universities in the United Kingdom and the self-governing Dominions, an interesting experiment was begun in the small but very important British colony of Hong Kong, off the coast of Southern China. A College of Medicine for the instruction of Chinese in Western medicine and surgery had been founded in connection with the hospitals of Hong Kong in 1887, and it was incorporated in 1907, and in that year a movement was begun to secure an endowment for absorbing it into a fully equipped university. Large

sums having been raised from the local mercantile community, the Government of the Colony, and the Chinese Government, the University of Hong Kong was incorporated in 1911 and formally opened in 1912. Further endowments for the purposes of special departments have been received in subsequent years, and the University is now coming to exercise a great influence in its own sphere. It is organised on the fashion of a modern English provincial university of unitary type, and all students must be resident either in university quarters or in hostels provided by religious bodies. This regulation is imposed by the charter, because it was felt that the highest task of a university that is meant to bring the lessons of Western culture to the people of China is to develop and form the character of students of all nationalities and creeds. The root ideas of the university is to provide a place of higher education where Chinese youths can remain under the influence of their own parents and guardians, and subject to the strong control which Chinese opinion exerts upon young men, instead of being adrift in a foreign country where a liberty is allowed to undergraduates that is unknown to students in the East.

One of the oldest universities in the Empire,

the University of Malta, has recently undergone reorganisation in the light of modern university experience. It was founded under Papal sanction in 1769, and its Medical Faculty dates back to a School of Anatomy that was founded by the Knights of Malta as early as 1674. The university has unique characters of its own, and notably the type of its Faculties of Law and Theology, which derive from its history as a Mediterranean institution. On its medical side, the university approximates more to the English model, and this particularly advantageous, for students with Maltese qualifications frequently come to British hospitals to pursue further study before entering into practice.

The last stage of our search for sources of invention and influence in university development brings us back to the place from which we started in 1826, the University of London. To the re-constitution of the university in 1900, and the immense increase in its work and influence since that date, reference has already been made, but we have considered rather the development of the older colleges and schools in the university than its new departures. These have been many, and perhaps the most important of them all has been the foundation of the London School of

Economics and Political Science in 1895, and of the Imperial College of Science and Technology in 1907. From modest beginnings, the School of Economics has developed into one of the most important centres in the university, and on the side of education with which it deals it has become a source of inspiration to all parts of the Empire. It is particularly a one faculty college, and the teaching in Economics in the university is, to a considerable extent, concentrated there. But with the great development of higher teaching in Commerce, and a new stirring in the Law Faculty, the School of Economics is becoming broader in its interests, and is now in very close co-operation with other colleges and with classes and staffs in common, especially King's College. There is thus coming about a mingling of the two concurrent streams that have been flowing strongly in the university during the last twenty years, and each of which has produced important results. First, the foundation of new segregated institutions, and, second, the extension of inter-collegiate working. The first of these streams has given rise to the establishment of special schools after the fashion of the University of Paris, each confined to a single type of study. The School of Economics was the first product of this

movement, the Imperial College the second.

The Imperial College of Science and Technology derives its inspiration from the movement for teaching in Natural Science that we showed as so potent in the second half of the nineteenth century. Even to its warmest advocates it was evident at the time of the great discussions connected with the passing of the Education Act of 1902 that the system elaborated by the old Science and Art Department had not been entirely successful in achieving its technological aims. Its critics pointed to the greater success that they claimed to have been achieved in Germany, and especially to the School of Technology that had been built up at Charlottenburg. They contrasted its extensive and highly-organised equipment and results with those of the ill-arranged and somewhat petty attempts of the Royal Colleges of Science at South Kensington, much to the disadvantage of the latter. These criticisms fell on receptive ground, for British manufacturers were beginning to feel the acute competition of German technical industry, and these educational discussions were contemporaneous with a great political agitation that predicted the downfall of British industry unless drastic steps were taken. The

supporters and the critics of the political measures proposed were agreed upon one thing, that the Germans had left us behind in practical accomplishment, and they could meet on common ground in providing for improved equipment for teaching and research in Technology. In Manchester, a Faculty of Technology was constituted in 1905, and the College of Technology became its centre within the university. The Glasgow and West of Scotland College of Technology, of whose rise we have spoken earlier, was further endowed and reorganised as the Royal Technical College in 1912, and became the centre of the Faculty of Applied Science in the University of Glasgow (Civil, Electrical, and Mechanical Engineering, Mining, Naval Architecture, Textiles, Navigation, Architecture, and so on). In the smaller university centres the departments of Technology or Applied Science attracted benefactions to the general university funds as was described above, and between 1900 and 1910 their technological departments were their best advertisement.

The greatest change took place in London. A considerable endowment was raised in response to widespread appeals to remove the reproach of German technological supremacy, large governmental grants were made, and in

1907 a Royal Charter was granted for an institution that was to inaugurate a new era. The Royal College of Science, the Royal School of Mines, and the City and Guilds (Engineering) College were absorbed into a new Imperial College of Science and Technology, a school of the University of London in the Faculties of Science and Engineering. The purpose of the new foundation was stated to be "the giving of the *highest* specialised instruction and providing the fullest equipment for the *most advanced* training and research in various branches of Science, especially in its application to Industry." This appeared to imply the claim to exercise the functions of a "super-university," an aim that all university experience has proved to be impossible of attainment. A considerable part of the endowments provided was devoted to the equipment of departments that had no connection with technology, and to fill the new laboratories, provision was made for undergraduate teaching in pure science of the regular university sort. London has thus acquired in the result not a super-institution with peculiarly Imperial functions and one that transcended all the universities of the Empire in the field of Applied Science and Technology, but merely another university

college of the first rank. The Imperial College stands for one type of education in science and engineering—that of segregation. The other great Colleges of the University have stood for a century past for an opposite policy—the teaching of professional students in contact with those of all other Faculties; and the Engineering and Applied Science Departments of University and King's Colleges have always had a very high reputation since their formulation in the forties as the earliest departments of this sort in the world. Between these two policies of segregation and association there is still a gap that is not yet bridged. If the Imperial College had fully achieved its aims as a college for the highest forms of technology for the graduate students, its success would have been more striking than it has been. A great deal of its teaching has been to the undergraduate of the ordinary type who come from the same sources—English, Indian, and Colonial—and take their places in the university alongside those from the great general colleges, but are not marked by any special excellence of attainment. In the field of research, in pure science, too, the Imperial College holds its own, but its achievements are of the same order as those of other colleges. Nothing particular seems to have been gained

from the policy of Faculty segregation, and to the minds of most observers it seems as though the undergraduate of a one Faculty college has lost a good deal of the broadening influence of university life.

The equipment of all the laboratories and workshops in the university has been greatly extended in recent years, and especially since 1907, so that there are now, besides the lesser schools, three centres in pure and applied science in London, each of first-rate importance, all working concurrently in the same fields, but each with its own particular characteristics and outlook. This necessarily enables a greater degree of specialisation within each subject in the Science Faculties to be achieved in London than in almost any other university. It admits of a great flexibility of curriculum, and the most recent developments are tending towards an increased freedom of teaching and examination in all the great science subjects.

Another recent development of great interest in London has been the foundation of research institutions for post-graduate students. They are of more than one type, and, as the movement is still in its early and, in some cases, experimental stages, it is impossible to describe them with any degree of completeness. The first type of institute is one that has its own

building and teachers. These teachers have no close contact with the rest of the university and never see undergraduates, but are engaged in their own researches along with a small number of post-graduate students who have come from any and every part of the world. The Lister Institute of Preventive Medicine is of this type, and was founded in 1901 for research into the causation, prevention, and treatment of diseases of men and animals. The teachers of the Institute have their own place among the university professoriate, but their connection is largely nominal. An institute of this type, the Physiological Institute, having proved very expensive, and not having achieved anything more notable than the Physiology departments in the colleges and medical schools, has now been closed.

The second type of institute is that which is situated within the precincts of one of the great colleges. Its teachers are engaged solely in post-graduate work, but they have usually had in the past a considerable share in the general work of the university and its boards of studies, and both they and their students are in close social touch with people in other faculties and subjects. The typical institute of this sort is the Francis Galton Laboratory for National Eugenics (founded in 1904),

which is housed at University College. The School of Slavonic Studies, housed at King's College, has many similarities to this type. An elaborately-equipped Institute of Anatomy has recently been opened, and the number of such institutes appears likely to increase.

The most original type of institute is that of the Institute of Historical Research, which was founded in 1921 as the first institute on the Arts side, and has, as yet, no parallel. It consists of a series of specially designed and equipped working libraries in a building of its own close to the great library of the British Museum. Its use is confined to historical scholars and post-graduate students of history from the University of London or any other university, but it has neither teachers nor students of its own. History is of all subjects in London the most inter-collegiate, and the Institute is the coping-stone of a system that has been developing for some years. Every teacher has his university home in a particular college, and deals with undergraduates from his own college and those from other colleges in classrooms within that college, though he may occasionally lecture elsewhere for convenience sake. The research students who are working under his direction spend their days among the manuscripts of the Public Record or

the British Museum, and in the late afternoon, when those repositories of the raw material of the historians are closed, they gather round their teacher in his seminar at the Institute to compare results and gain guidance. The system is reduced to the simplest of organisation, there is no expensive staff, and there is no breach between any part of the university's work, so that each part, undergraduate and post-graduate, supports and vivifies the other. It is probable that this simple type of institute will be extended to other suitable subjects as time goes on.

The School of Oriental Studies, which was founded and endowed with private benefactions and Government grants in 1913, partakes partly of the nature of an institute, and partly of a specialist college. It absorbed the work in Oriental Studies that had been carried on at University and King's Colleges for more than half a century. Students from other colleges attend its lectures under the intercollegiate system, its students pass to other colleges for many subjects, and its teachers frequently lecture elsewhere in the university. Like the School of Economics, it is not a sharply segregated institution, but tends to merge its life more and more in the broad stream of university development.

The many new developments that have

taken place in recent years in the Faculty of Medicine in the University of London and in other of the greater British universities, are of too technical a character to be dealt with here. But the same might be said of the changes in many subjects, and it has only been possible to trace the development of university organisation in its simplest outline. Where fifty years ago there were only a few universities, each with a comparatively simple organisation, and each finding almost its whole task in teaching undergraduates a traditional curriculum up to a first degree, to-day there is a very large number of universities and other institutions connected with higher education, each developing fast along its own lines and with its own special characteristics. The larger the university, the more specialised its work. In the largest universities, the teaching of undergraduates is now only a portion of their task; the furtherance of research, the uplifting of the adult citizen by extra-mural work and public lectures, the carrying out of investigations for the State—all involve constant developments of organisation and the elaboration of new devices, so that it may be claimed with truth that the universities are among the most vital and independently progressive agencies in the Empire of to-day.

CHAPTER VI

UNIVERSITY ORGANISATION

A CENTURY of experiment has given to the British Empire many universities, distributed widely in all parts, save in the less-advanced Dependencies, and the experiments have enforced some important lessons. It has been proved that a real university is the highest integration of the community in intellectual matters, and that the establishment of a university in a highly organised centre of national life stimulates and develops the spiritual and material progress of that centre in a remarkable degree. But this is the case only when the university is recognised for what it is, and is allowed entire freedom to develop on its own natural lines. Over-organisation cramps and hinders that development, and interference by laymen and by the State is fatal to sound and healthy growth. The most harmful experiments have been those that have attempted to keep the universities in leading-strings, and have regarded only one of their functions, that of direct teaching of the adolescent. Where

Government departments or bodies of well-meaning but short-sighted laymen, or even university presidents, have tried to treat the university teachers as persons in a subordinate capacity who are paid to do certain work, and have set down lines and limits for that work, the results have been fatal. Buildings, laboratories, hostels, and endowments do not make a university ; as in the Middle Ages so to-day, the university consists of a group of " doctors," men who are striving fearlessly to advance the bounds of knowledge, who have the capacity of inspiring their disciples with their own zest for learning, and teach more by their example than by the imparting of information. Without such " doctors " or professors, no university can exist, but the finest group of professors is not a university ; it is essential that they shall be surrounded by and working in the midst of their disciples, their undergraduates, their post-graduates, and their research students. To manage and facilitate the working of such large groups, the provision and organisation of material equipment are required, and experiment has proved that it is in this direction that the help of the layman is necessary and valuable. Not merely must buildings and equipment be provided as and how they are called for by the university,

provision must be made for their maintenance. Ample endowment is therefore necessary, for it has been abundantly proved that university work cannot be directly self-supporting. No place of higher education can be maintained out of the fees paid by its students, and the return that the community gets for the outlay that it expends on its universities cannot be measured in pounds, shillings and pence, or in any other material measure. It lies among the imponderables that are the essentials of sound national life. The management of endowments and finance is the proper business of the laymen connected with the university, and the great majority of the professoriate may well be relieved of the task so long as there are intimate links preserved between the two sides, and neither professors nor lay governors attempt to work without the closest co-operation.

A noticeable fact with regard to the universities of the British Empire, and especially to the universities of England and Wales, is that a smaller proportion of the population passes through them than is the case in the United States of America, in Germany, and in France. Only Scotland appears to have a proportion comparable with these other countries. Severe criticisms have been levelled

against England on this score, and they are not entirely undeserved, for undoubtedly she has been backward in appreciating the essential part that the universities should play in the national life. But the truth of the matter is not so simple as it appears at first sight, and the comparison of England with the United States is especially misleading. A great deal of the work done in American universities is not at all comparable with that in England, where similar work is done in the higher forms of the secondary schools. The immense numbers that flock to the universities in the United States are not regarded as an unmixed blessing by their teachers, and the work of the majority is of so comparatively elementary a character that it would be better done in smaller institutions scattered throughout the country, where closer discipline and more intimate contact with their teachers can be obtained. The comparison of America and England is to some extent fallacious, and the same is also true of the Canadian and South African universities and colleges which are faced with the same influx of ill-prepared undergraduates. The differences in these respects must be borne in mind when we come to consider the arrangements for undergraduate courses.

The classification of the universities of the British Empire into certain broad types is a task of difficulty, because the result will vary according to the criteria employed, and no criteria will enable us to define our classes sharply. Perhaps the best test is to consider first the form of organisation of each university and, when further differentiation is necessary, to employ some characteristic that seems usually to accompany a particular form of organisation. The result is not wholly satisfactory, but at any rate it does permit us to discern that no university in the Empire save, perhaps, London, stands as a law unto itself. Classification on this plan gives the following result :

1. *The Ancient English Universities and their imitators.*

   Oxford, Cambridge, Dublin, Durham (in part), and Reading (in part).

2. *The University of London.*

   Toronto (similar in some respects).

3. *The Scottish Type.*

   (*a*) Edinburgh, Glasgow, Aberdeen, St. Andrews, and

   (*b*) Queen's (Kingston), McGill, Dalhousie (similar to the others in this class in general character, but not in details of organisation).

4. *The English Provincial Type.*
   Manchester, Liverpool, Birmingham, Leeds, Sheffield, Bristol, Durham (in part), Hong Kong, Cape Town, Witwatersrand, Stellenbosch, Belfast. (Certain of the new Indian universities resemble this type.)
5. *The Federal Type*, in which each university college resembles the smaller universities of the foregoing type. Wales, South Africa, National of Ireland.
6. *The State University Type.*
   Alberta, Saskatchewan, Manitoba, British Columbia, Western of London (Ontario).
7. *The Australian Type.*
   Sydney, Melbourne, Adelaide.
   Queensland and Western Australia are also allied to types 4 and 6.
8. *The French Type.*
   Laval, Montreal, Ottawa, and, in some respects, Malta.
9. *The Examining Type.*
   New Zealand, Calcutta, Bombay, Madras, Punjab, and, in part, Allahabad.

There are also various institutions which, while they have certain degree-giving powers,

are rather colleges than universities in the highest sense. They give an excellent training up to the standard of the first degree, but they would hardly claim to stand alongside the greater universities of the Empire, which have many Faculties, large numbers of students and post-graduates, and a considerable output of research. Denominational influences are strong in most of these colleges and college-universities, and their affinities to certain of the types shown above can be recognised from their history. Most of them have been mentioned in earlier chapters.

1. The three ancient universities of Oxford, Cambridge, and Dublin have preserved among themselves to the exclusion of other universities a custom that was common among the universities of the Middle Ages. They "incorporate" or admit members reciprocally to the same status and degree that they hold in their own university, providing that they have "kept" (*i.e.*, been in residence for) the same number of terms as would have been required in the incorporating university. A Master of Arts of Cambridge may proceed to the LL.D. of Dublin by complying with the same requirements as a graduate of Dublin, and so on. Before women were admitted to

degrees at Oxford, they often proceeded to the Dublin M.A., after keeping terms and passing their examinations in the English university.

The supreme governing body is composed of all the Masters of Arts and Doctors who have "kept their names on the books," *i.e.*, have paid the required fees for a certain period. This body is called *Convocation* at Oxford and the *Senate* at Cambridge, and has the power of accepting or rejecting measures passed by the resident masters, etc., of the university or colleges, who are called at Oxford *Congregation*, and at Cambridge, the *Electoral Roll*. The executive body, which carries on the business of the university and prepares measures for submission to Convocation or the Senate, is a small elected body, called the *Hebdomadal Council* at Oxford, and the *Council of the Senate* at Cambridge. Matters relating to studies and examinations are dealt with by boards, consisting of the principal teachers in each subject, called *Faculty Boards* or *Boards of Studies*, and there is a *General Board of Faculties or Studies* chosen from these, that deals with matters of common interest relating to the subjects. The system in Dublin is similar in effect, but differs in detail. The enforcement of university discipline is in the

hands of the Vice-Chancellor and Proctors, who are elected for a period of years from the various colleges in turn. The colleges are corporate bodies distinct from the university, and enforce discipline upon their own members. They possess and manage their own property, elect their own officers, and have full self-government, being independent of university jurisdiction. But this does not mean that they are really distinct from the university, for the connection is of the most intimate kind; the great majority of the members of the university, and practically all of the members of the executive authorities, belong to the colleges, and all who belong to the various colleges are at the same time members of the university. Without any formal agreement, the university and the colleges mutually recognise each other's regulations. The government of each college is in the hands of its Fellows and their Head, who may be called Master, Principal, President, etc. The teaching is mainly carried on in the colleges by fellows, who hold college or university lectureships. The lectures are all inter-collegiate, but every undergraduate has his own tutor, who is a fellow of the college to which the undergraduate belongs, and who in private interviews looks after his work and general

well-being. It is in this closely organised tutorial system that the ancient universities differ from other types.

Besides the teaching staffs of the colleges, there are Universary Professors and Readers, who may or may not undertake a considerable amount of lecturing and teaching. Attendance at their lectures is entirely voluntary, and there are many professors of the highest distinction who rarely attract large audiences. Their contribution to the university is the work they are doing for the extension of knowledge, and their service is in no way estimated, or, in fact, estimable by the number of hours they teach.

No one can become a member of the university, whether as undergraduate or post-graduate, unless he first becomes a member of a college,[1] or of the Society of Non-Collegiate Students,[2] which is managed on lines similar to those of a college. Residence within the walls of a college or hall, or in licensed lodgings under college discipline during a certain number of terms, never less than six, is a condition of admission to any degree. At Dublin, the undergraduates of the first two years are called Junior and Senior Freshmen,

[1] Or Hall. These are similar to Colleges, but are less highly organised.

[2] Also at Oxford, the Society of Home Students (for Women).

and have to take a compulsory course, but they are then allowed to specialise for their remaining two undergraduate years, and are known as Junior and Senior Sophisters. In this, Dublin differs from Oxford and Cambridge, and is followed by certain of the Canadian universities.

2. The University of London is governed by a *Senate*, consisting predominantly of laymen. Certain members are representative of the great colleges, and some are elected by the Faculties which are composed of the principal teachers, but the majority are either appointed by the Crown or by certain public and professional bodies, or are elected by the graduates of *Convocation*. In some cases this election falls upon persons with a real stake in the university, as teachers or administrators, but unfortunately, owing to an unpleasant system of lobbying, persons of little position or eminence are not infrequently elected to guard vested interests, and this makes the Senate a very difficult body to work. Nominally, everything is done upon the authority of the Senate, but it is practically impossible to carry this into real effect, and it delegates most of its powers to certain important boards, upon whose advice it depends by statute. The most important of these boards is the

Academic Council, which consists of the professional members of the Senate. It corresponds roughly in function with the Council of the Senate at Cambridge and the General Board of Studies rolled into one. Matters relating to the two "incorporated" colleges, University College and King's, are dealt with by committees, which are practically autonomous, and contain, together with members of the academic staff, members who do not belong to the Senate. Each is advised in academic matters by a Professorial Board, containing the principal teachers in the college concerned. Each subject (*e.g.*, Mathematics, Chemistry, History, etc.) is dealt with on the academic side by a Board of Studies, and nominally their decisions are submitted for correlation to the appropriate Faculty (Arts, Science, Medicine, etc), but in practice the Faculties are not very effective, and the Boards of Studies, which are very important bodies and contain teachers from all over the university, report directly through the Academic Council to the Senate. They also advise upon the syllabuses and examinations of the external side, and their recommendations in these matters go through the *External Council*[1]

[1] The External Council consists of the members elected to the Senate by Convocation. It is a predominantly lay body.

to the Senate. Twenty years ago the Academic and External Council were of approximately equal importance, but to-day, whereas the former is overweighted with work of the greatest importance, the latter is largely concerned with routine business. Its representation on the Senate, however, is still preponderant, and it is this feature of the organisation of the university which undoubtedly calls for reform. The financial business of the university is managed by a Finance Committee, but its work is quite overshadowed in importance by the work of the committees of the "incorporated" colleges, which administer very considerable funds.

Many of the students in Arts, Science, and Engineering, and all in Medicine, do not work in the "incorporated" colleges, but in so-called "Schools of the University." These are organised in a precisely similar way to the colleges, but they are responsible for their own government, without even a nominal control by the Senate. This is a distinction without any real difference, for in practice the colleges are in an identical position—they all alike receive separate grants from the State and have to pay their own way. Institutions of the first rank, like St. Bartholomew's Medical School, the London School of

Economics, the Imperial College, University College, and King's College, have all a great similarity of organisation and of problems to be handled. Each is managed in very much the same way as a provincial university, but in academic matters they have of late years come to pool their interests to a very large extent. Social life and discipline are college matters entirely, and though no residence is insisted on, the colleges have many hostels for the accommodation of their students ; they have fine athletic grounds, clubs, unions, and societies of all sorts, and their students mingle with those from other colleges to an extent that is already very considerable, and grows from year to year. University athletic clubs and a union do not displace college loyalties ; they accept and fuse them into a higher university loyalty.

The extraordinary complexity of the University of London is an almost inevitable accompaniment of a wide-spreading institution of immense size situated in the middle of the world's greatest urban population. Centralisation is not merely impossible, it is in the highest degree undesirable, for the strength of the university, with its many centres of active life, lies in its extraordinary diversities, and the opportunities that students have to find a

place of study that is congenial to them. Academically, the university is one, and thus a higher degree of specialisation can be attained than is possible in universities with less numerous staffs. More and more as years go by, the advantages of specialisation in an inter-collegiate system of institutions that are not far removed from one another geographically are being realised and developed, and this gives to London exceptional importance as a centre of post-graduate study. But the number of undergraduates is so considerable, that it is necessary to duplicate many times over the elementary lectures and laboratory courses, if each student is to have any opportunity of coming into personal contact with a teacher of real professorial quality, and is not to be herded into immense classes and taught by junior assistants of little more ability and experience than himself. There is no waste in duplication of this sort, but an invaluable means of avoiding the evils that beset certain universities, which on paper are never tired of pointing to their colossal numbers of students, and in private bitterly regret the way in which this influx of numbers has swamped their best work.

The teaching in London is carried on by an active professoriate, consisting of "appointed"

Professors and Readers, who are appointed by the Senate, and each of whom has his working place in a particular college or school. They are assisted by Lecturers and Demonstrators of various grades, who are appointed by the colleges and schools upon the advice of the professor under whom they will work. The Senate keeps control of the general standard of all this junior academic staff by a system of "recognition." Only attendance at the classes of an "appointed" or "recognised" teacher is as a rule accepted as complying with the regulations as to study which are enforced on the internal side.

3. *The Scottish type of University.*—It is worthy of note that amid all the founding of universities elsewhere in the Empire in recent years, Scotland alone has been contented to strengthen her ancient institutions, and has steadily set her face against new foundations. The supreme governing body in all the Scottish universities since the reforms of 1858 and 1889 has been the *University Court.* This consists of the Rector (who is a person of eminence chosen triennially by the students, and whose connection with the university is merely nominal), the Principal, who is the permanent administrative head, the Lord

Provost of the university city, and a number of nominated or elected laymen and professors. The court is a body corporate, with full power to administer the property of the university, to found new chairs, make appointments, and define the nature and limits of the work of the professors appointed, and to act as a Court of Appeal from the Senatus. It is not a very numerous body, and takes its functions actively and seriously.

The *Senatus Academicus* comprises the Principal and the whole of the professors of the university, and is entrusted with the regulation and superintendence of teaching and discipline. Certain functions are performed by joint committees elected partly by the Senatus and partly by the court. The *General Council* consists of the members of the court, the Professors, Lecturers and Graduates of the university, and meets twice a year to consider broad questions of policy, which by statute must be submitted to it. But its functions are rather suspensory and advisory than active.

The Scottish universities mutually recognise each other's courses to a considerable extent, so that a student may pass from one to another, but at least two years out of the prescribed course of not less than three years must be passed in the university granting the degree.

Students are required to attend regularly prescribed courses of lectures, and these are delivered by the professors, readers, lecturers, and assistants. There is no organised tutorial system and no requirements as to residence are made. The teaching of undergraduates demands a preponderant part of the time of most professors, and they are overweighted in the principal subjects with a great deal of administrative and examining work, so that to many it seems as though the cause of learning would be furthered by a considerable increase of the non-professorial staff. This would enable the organisation of training in research to be undertaken on a considerably increased scale. It has already been stimulated by the post-graduate research scholarships and fellowships of the Carnegie Trustees for the Scottish universities.

Each university has a Students' Representative Council, which has the right of access to the University Court, and which manages all the students' social activities. The four councils meet annually in conference at one or other of the university centres, and discuss common measures in matters of general interest. This conference is largely responsible for the feeling of solidarity which is a marked feature of student life in Scotland, and which enables

Scotland to play such an energetic part in International Conferences of university students.

The organisation of Queen's (Kingston, Ontario), and McGill, resembles that of the Scottish universities very closely, the chief administrative officer in McGill being called President, after the American model. Probably McGill has been the more affected by American experience, but in each university the Scottish inspiration is still very strong indeed, and the professoriate is often recruited from Scotland.

4. *The English Provincial type.*—This is undoubtedly the type of organisation that has most attracted the minds of university reformers in the British Empire in recent years. It is a direct descendant of the organisation worked out in the two London colleges before they became merged in the university, and it is still to some extent retained in King's College, so far as it is autonomous. The typical form of organisation may not be followed in all its details in any particular case, but there is a very close similarity in every university of this type. The authorities of the university, besides the Chancellor, whose post is an honorific one, are as follows: The *Vice-Chancellor* (or *Principal*), who is a man of

academic eminence, and acts as the administrative head of the university. He is not merely employed upon the business side, but by reason of his great academic experience is the leader of the professoriate in all matters of policy. He does not possess the semi-autocratic powers of the president of an American university, but he has a great deal of influence on university development. The *Court of Governors*, which is the supreme governing body of the university, and deals with broad questions affecting property and policy. It is a numerous body, consisting of representatives of local authorities, nominated members, representatives of the professoriate, of the non-professorial staff, of the convocation of graduates, and many others. It meets comparatively rarely, and does not transact detailed business. The executive body is the *University Council*, consisting of a comparatively small number of members chosen by the court, together with the Vice-Chancellor and certain academic members. Its main business is to manage the finances and property of the university, and to determine questions of policy into which financial considerations enter. The academic work of the university is managed by the *Senate*, which consists of the Vice-Chancellor and Professors, and possibly certain members

elected by the non-professorial staff, or chosen specially, *e.g.*, the Director or Tutor of Women Students. The duties of the Senate are of great importance, for it has the power to discuss and declare an opinion on any matter whatsoever relating to the university, and in many cases the Court is precluded by statute from undertaking action except upon the advice of the Senate. This gives its strength to this form of constitution, for it means that the elaboration of policy lies in the hands of those who have devoted their lives to the furthering of the purposes of the university, the cultivation of learning.

For working out academic detail there are Faculties or Boards of Studies, each concerned with a subject or group of subjects, and there is also *Convocation*, consisting of all the graduates of the university, which has little power, save that of electing the members to represent the university in Parliament. In none of the universities of this type in England is residence obligatory, but there are always many hostels attached, and a certain growing proportion of students thus live a community life. The universities are situated in great centres of population, and draw their undergraduates mainly from the districts round. They are permeated with a strong local patriotism, are

regarded with civic pride by the locality, and through their public lectures and extra-mural tutorial classes, undoubtedly have a great deal of influence in fostering the intellectual life of the communities in which they are situated.

5. *The modern Federal type.*—This is very closely allied to the foregoing class, for the university colleges that compose it are each of them modelled and managed like small universities, and serve the same sort of purpose to the areas in which they are situated. The type is a compromise adjusted to fit the circumstances of an area with some community of feeling, but having separate colleges, none of which is strong enough to stand alone. In Wales, for example, the supreme body is the *University Court*, consisting of 250 members, more than half of whom are representative of the local education authorities. This body is deliberative and legislative, but only meets occasionally, and does not undertake detailed supervision of policy. The *University Council* is the executive and administrative body distributing all the funds provided for university education by the Government and the local education authorities. Each constituent college is responsible for the curricula and examinations for the first degrees, and university

examiners only take part in the final stages. There are university *Boards of Studies* in special subjects, like Technology, Celtic Studies, and Music, but, generally speaking, academic policy is determined independently by the professoriate in each college. The National University of Ireland seems to be developing on similar lines, but at least one of its constituent colleges is so weak that there are likely to be considerable difficulties in practice.

6. *The State University type.*—The supreme authority in the new Canadian universities lies in a Board of Governors, comparable with the Regents or Trustees of an American university. They are predominantly a lay body, and have complete financial and administrative control, using as their executive officer the President, who is usually chosen as a man who combines high academic attainments with a good deal of business ability. He is not always a man of academic experience, however, but may have attained to eminence in other spheres of organisation. He is the link between the Board of Governors and the Senate, which regulates educational matters and consists in the main of professors and senior teachers. In British Columbia it consists of the President, the Minister of Education for the Province,

the Dean, and two professors of each Faculty, certain Government nominees, the Superintendent of Education of the province, and various members elected by teachers in schools throughout the province. Thus the academic members are in a small minority, and it has yet to be proved whether a university held so tightly in leading-strings can properly do its work. In Saskatchewan, the Senate is a body that is largely lay and is elected by the graduates, and regulates all educational matters under the Board of Governors. The administration of its policy, however, is entrusted to an Academic Council of professors and teachers, but the real power lies in the hands of the President, who is a member of each of the bodies, and has statutory powers in all appointments and dismissals in the university. So complicated an arrangement has resulted in some friction between the governors and the academic staff, and to English eyes it appears to be too cumbrous, and to deprive the men upon whose labours the making of a real university must depend of all effective stake in their government. The general trend of Canadian universities in these matters has been influenced by American precedents, and it has, perhaps, gone too far towards over-organisation and presidential control.

7. *The Australian type.*—The Australian universities have tended in the opposite direction, and none of them have any presidential control whatever. Their highest administrative officer is the Registrar, who is usually a man of business type, and has no pretensions to academic eminence. The governing body of the university is the Senate, containing some proportion of Government nominees, but mainly consisting of the same type of men as those on the council of a university of the English provincial type. Academic matters are dealt with by a professorial body, but the universities undoubtedly suffer from having no professional leader. The Chancellor and Vice-Chancellor are laymen who serve in an honorary capacity ; the chairmanship of the professorial board is only a temporary office, and it casts an impossible amount of executive work upon the shoulders of an active head of a department who is already overburdened with undergraduate teaching. The most striking novelty about the Australian system is that of its residential colleges. These are found in Sydney, Melbourne, and Queensland. Within or near the university grounds are fine buildings, provided by the various religious denominations for the accommodation of students, and providing them, not merely

with residence in a community life, but also with a tutorial system of great value. Each college is self-governing, and none of them receive financial aid from the State, but they are very closely associated with the university, for all their students attend its lectures. Men upon the staffs of the colleges do not, as a rule, belong to the teaching staff of the university, but the informal influence of a great college like Ormond at Melbourne is very potent in university life. The men who have belonged to the colleges have a strong loyalty to them which merges into their loyalty to their old university. The colleges at Sydney are St. Paul's (Anglican), St. John's (R.C.), St. Andrews (Presb.), and Wesley (Methodist). At Melbourne they are Trinity (Anglican), Ormond (Presb.), Queen's (Methodist), and Newman (R.C.). A similar system is being developed in the newer University of Queensland. Only a small proportion of the students of the universities live in colleges, and the majority live at home or in lodgings in the city.

8. *The French type of university* is only found in the French-speaking province of Quebec, and it differs radically from any English type, being built on quite a different plan.

The universities have developed apart from

the current of university life elsewhere in the British Empire, and perpetuate the stages by which a degree is reached in the University of Paris. The Baccalauréat is not the equivalent of any English degree, but is a certificate that the student has successfully completed his studies in Arts or in pure Science, and is qualified to begin professional studies. Work for the baccalauréat is done in residential seminaries or colleges, all of which are under the close supervision, as to teaching and discipline, of the Archbishop of Quebec, as Visitor and Chancellor Apostolic. The Conseil de l'Université, which is the actual governing body under the Archbishop, is composed of the Directors of the Seminary of Quebec and three senior Professors of each Faculty. The higher work of the students and their professional training is obtained in superior schools within the university, each devoted to a particular subject or group of subjects, thus :— École Supérieure de Chimie, École Normale Supérieure, École d'Arpentage et de Génie Forestier (*i.e.*, of Surveying and Forestry), École de Commerce, and so on. The higher degrees obtained are those of Licentiate, which admits to practise, and the Doctorate.

The University of Montreal was for many years a branch of Laval, Quebec, but in 1920

it was incorporated by an Act of the Provincial Legislature, and receives assistance from Government funds. The general administration is conducted by a Senate, Commissions of Administration and Studies, and a University Council. Its system of teaching is like that described above, and it is under the supervision of the Archbishop of Montreal, but its re-organisation seems to mark something of an attempt to bridge the gulf that separates the French from the other Canadian universities, and it will be interesting to watch its future development.

9. *The Indian examining type.*—The organisation of these universities was incidentally described in studying their history, and it is unnecessary to enter into details here. The universities have undertaken post-graduate teaching since 1909, and Calcutta has now a large staff of university professors and lecturers who are engaged in instruction for the Master's degree in Arts and Science. There is a Council of Post-graduate Teaching in Arts and Science which deals with this side of the work, but until definite decisions are come to concerning the carrying out of the recommendations of the Calcutta University Commission of 1917-19, it is impossible to describe the system in detail.

CHAPTER VII

THE NON-PROFESSIONAL TEACHING OF THE UNIVERSITIES

THE teaching work of every university is divided into two parts, according to the purpose of the work undertaken. On the one side lies vocational training for the professions, notably Medicine and Engineering, and, outside the United Kingdom, for Law, and on the other side the general cultural work of the university in Arts and pure Science. To enter into a comparison of the requirements of different universities in regard to their professional courses would carry us into niceties of regulation that are incapable of appreciation by others than those actively engaged in the work. For information concerning them, reference must be made to the university calendars and catalogues. With the non-professional courses, the matter is different. Over and above all the details of regulations, there are certain broad differences of principle which distinguish universities one from another, and it seems worth while to attempt to trace out some of these differences.

The first concerns the attitude of the universities towards a preliminary literary training before a student is allowed to enter upon a professional or vocational course. The most rigid requirements in this matter are to be found in the universities of French Canada. All students take their courses in a seminary or college, and are trained under strict conditions in a few literary subjects, including the Classics. Philosophy of a somewhat elementary sort, and Mathematics or elementary Natural Science. At the end of the course, having fully kept all his terms and passed his examination, a student receives his Baccalauréat (B.-ès-A.) If he satisfies more than the minimum requirements, and does more work in Science, he may receive the B.-ès-Sc. instead, but neither is a degree in the English sense. The Baccalauréat is rather a certificate that the student has completed satisfactorily a course of work that is paralleled in England by what is now done in the highest forms of the great public schools, and what is being aimed at by the new Advanced Courses in British secondary schools. The student at Laval has probably worked harder and possesses more information than a sixth-form boy from Rugby or Winchester, but the conditions of his training have been such that he is less

self-reliant, and he has not, as a rule, the initiative that his English contemporaries have.

The Baccalauréat achieved, the student passes to his professional school, where for two, three, or four years, according to his Faculty, he will do the same sort of work that is done in an English university, but he will only meet men of his own Faculty, and professors who are solely engaged in teaching men of his type. The man who is taking up teaching, literary work, or journalism, will proceed in two years to the Licentiate in Philosophy or Letters (L.-ès-L.) ; he who enters the Church or the Law, in three years, to the Licentiate in Theology and in Law ; the chemist proceeds to a Licence in Chemistry, and so on. The system results in the cultivation of a very strong professional feeling in the various schools and a uniformity of attainment on the part of the licentiates that differs considerably from the variety of the English system. Every one who has passed through it, however, has at least attained some measure of proficiency in subjects other than his own, and no graduate of Laval in Natural Science could be as utterly ignorant of all literary and classical culture as is quite possible in England.

The first degree in the Scottish universities is the Mastership of Arts, and there is no

Bachelor's degree. The ordinary course extends over three years, and includes subjects from three of the four departments of the Faculty, namely (1) Language and Literature, (2) Mental Philosophy, (3) Science, and (4) History and Law. For entry to most professional courses, the attendance at the ordinary course and the passing of the examination for the M.A. degree is required as a preliminary condition, but these demands are not so insistent as they were, and a greater degree of early specialisation is now in vogue. Generally speaking, however, the Scottish student must come into at least a nodding acquaintance with the broader subjects of culture before he settles down into his professional groove. Large numbers of men with the first degree leave the university for the pursuit of business and commerce, without taking any professional course. Though they may not have gone far upon the road of learning, they have imbibed the university spirit, and remain more in unison with those whose lives are devoted to learning than are men of similar occupations in England. Above the ordinary M.A. course there is now in each Scottish university an Honours course, of which something will be said later.

The Universities of Oxford and Cambridge

use different names for the various parts of their system, but it is in very large measure the same, and demands from all students who are proceeding to a professional course the attainment of the degree in Arts. But this does not involve the taking of a narrowly-prescribed course or the reaching of a particular standard in certain obligatory subjects. The essential feature of the undergraduate courses to-day is their sharp division into Pass courses and Honours. The courses leading to the "ordinary" or "poll" degree necessitate the passing of three examinations and a residence of nine terms.[1] Responsions (Oxf.) or Previous (Camb.) is a comparatively simple examination of the school-leaving sort, with certain obligatory subjects which the student passes before entering the university; there is during the course an examination, called at Oxford the First Public Examination, in preparation for which one special sort of work is taken, *e.g.*, History, Natural Science, Classics, Mathematics, etc., and at the end of nine terms a Second Public Examination in the same subjects that have been taken before. It is therefore clear that even in the case of the weaker or less diligent candidates, who

[1] There are always three terms to the year in English universities, each of about eight weeks, save in London, where they are ten or eleven.

alone take the "Ordinary" degree, the tendency is all in the direction of specialisation, and that the undergraduate throughout his course works only along one particular line of study.

All the men of ambition and diligence work for Honours degrees, and certain of the more celebrated colleges in each university in practice only receive Honours students. At Oxford, there are ten Honours "schools," of which the most celebrated, involving the severest competition, is *Literæ Humaniores*, comprising studies in Philosophy and Ancient History, and therefore a considerable facility in the classical languages. The candidate takes during his course an examination known as Honour Classical Moderations, and according to his proficiency he is placed in one of certain classes in which the names of the successful are arranged in alphabetical order. It is the ambition of all the best men of a year to obtain what is known as a "First in Mods." At the end of his course the Honours student taking *Lit. Hum.* stands his examination in his chosen subjects, and this time the goal is a "First in Greats." A similar system prevails in the other Honours schools, but their numbers vary greatly, from a crowded school like that of Modern History to the very few who take

Oriental Studies. At Cambridge each Honours school is called a "Tripos," and there are fourteen of these in all. Certain of them are of small importance, and the severest competition occurs in the Mathematical Tripos. Most of the triposes are divided into two parts, the first involving a general study of the chosen subject, and the second a more specialised study of some particular part or aspect of it. The requirements vary in a very great degree and it is impossible to generalise concerning them, but they all lead to two examinations in which candidates are classified according to their merits, and in which a First Class is the reward of reaching a high standard. In the case of the Economics, Law, and History Triposes, the candidate takes his First Part Examination at the end of his second year, and qualifies for his degree in his third year by taking the Second Part of the same Tripos, or of some other. Candidates do not as a rule read for two triposes simultaneously; if they desire to cover a wide field of study, they take the First Part of one tripos and then the Second Part of another in a somewhat allied field, *e.g.*, History and Economics, Law and Moral Sciences. The Mechanical Sciences Tripos (*i.e.*, what is called Engineering in other universities) is undivided, and must be passed

all at one examination. In every case, whatever the subject of specialisation, the degree obtained is the Bachelorship of Arts.

The London system differs considerably in nomenclature, but behind this difference it is in reality almost the same. Whereas a man whose studies have been entirely in the field of Natural Science at Oxford or Cambridge takes the B.A. degree like the man who has confined his work to Classics or History, his degree in London will be that of B.Sc., though his course has differed very little. If his work has lain in Economics, his degree at Cambridge is B.A., but in London with a similar course B.Sc. (Econ.) ; in Engineering, B.A. in the one case, B.Sc. (Eng.) in the other. The new Commerce course in London is not very far removed from the Economics courses at the older universities, but it leads to another degree, that of B.Com. Agriculture and Forestry at Oxford lead to B.A., in London to B.Sc. (Agric.). The greatest difference comes in Medicine, where it takes at least seven years to obtain a registrable practising qualification at Oxford and Cambridge, and, in the latter case, this will be B.A., M.B., B.Ch. (*i.e.*, after two or three years in preliminary Science work and five years in Medicine and Surgery). In London the course extends over five and a

half years, of which the first is devoted to pure Science in a curriculum closely parallel with that for the B.Sc., and the second and third years to scientific subjects with a medical bearing, Organic and Applied Chemistry, Anatomy, Embryology, Physiology, etc. The practising qualification is M.B., B.S.

Despite the difference of degrees, the system of study is almost identical. Students are divided in every Faculty save Engineering and Medicine, into those taking Pass and those taking Honours. The Pass degrees are of a higher standard than the Pass degrees elsewhere, and they involve a generalised study of four or three subjects chosen from wide lists in Arts and Science respectively. This is somewhat similar to the "elective" system prevailing in American universities. The course covers a minimum period of three years, and it is becoming much more common to take at school, not only the entrance examination or Matriculation, but also the Intermediate examination, so as to get three clear years without university examination. The London Matriculation has now for two generations been in the mind of the general English public the standard examination for boys and girls of between sixteen and seventeen who have done well at school, and have sufficient

general education to enter upon a business or profession. Very large numbers take the examination (and its equivalent, the General Schools examination) for the purpose of acquiring a certificate of this sort, and without any purpose of entering the university. There is now a distinct tendency, however, to aspire to a higher standard for the best pupils in the secondary schools, and to expect them to pass the Higher Schools examination, which is two years in advance of the Matriculation[1] examination.

Students taking Honours (save in Engineering) take courses all of which deal with their chosen subject under its various aspects, and possibly with some allied subject to a lesser extent as an auxiliary. Thus a man taking Honours in Chemistry will devote the greater part of his time to lectures and laboratory work in Inorganic Chemistry, Organic Chemistry, Physical Chemistry, etc., and commonly a smaller part of his time to Physics, or Physiology, etc. In Arts a man who takes Honours in English Language and Literature devotes two-thirds of his time to various aspects of the subject, like Anglo-Saxon, Middle English, History

[1] "Matriculation" is, of course, correctly the admission to a university accomplished by entering one's name upon its registers. To most Englishmen, however, it has come to connote an examination of a particular standard.

of Literature, and so on, and one-third to a subsidiary subject, *e.g.*, another language (French or German or Spanish, etc.), or General History, or Philosophy. To outside observers who are unfamiliar with the system and its results, it might appear that it would lead to a narrowness of outlook on the part of graduates, but the exact opposite is the case. They have sufficient time at their own chosen subjects to pursue courses that get away from mere text-book smatterings, and they come to realise something of the immense content of knowledge and the difficulties of the scholar and experimenter. They are thus broadened in their chosen direction, and since they are always in contact in their common rooms and societies with students in other subjects, they come to realise more of other men's points of view than would be the case if they were compelled to try to learn four or five subjects simultaneously and never get actually to grips with the problems of learning. Not every student is fitted to take an Honours course, and to some it is actually harmful, but the better minds rejoice in their emancipation from the shackles of a rigid curriculum and their liberty to wander more freely in the paths they have chosen. Emulation is encouraged, and every diligent student, even

among the least able, has something to work for in trying to pull himself into the Second Class, with the First lying far away as a distant goal, the preserve of the best men of the year. Several interesting experiments in Honours curricula have been undertaken in London, and some details of one of them, which has been very successful, may be of interest, as showing the direction in which English curricula are tending. The History School in London is probably the most inter-collegiate of all subjects, and it therefore has full access to the services of all the specialists in the university. In the view of the Board of Studies, the subject is so broad in itself, and so educative, that no auxiliary studies are necessary in the last two years of the course for the first degree ; some knowledge of Languages, Mathematics, Science, etc., has been acquired by the undergraduate at earlier stages. Candidates may choose whether they will specialise in the direction of Ancient History, of Modern History, or of Oriental History, but in each case they will be compelled to learn something of other fields. Half the course is devoted to lectures and tutorial work in the broad fields of historical knowledge, the Constitutional and Political History of Britain, the History of Europe, and so on, but every

student of Ancient History takes Mediæval, every student of Oriental takes European, as an integral part of his course. They all take the History of Political Ideas, which necessarily involves a study of Political Philosophy, and so have a common meeting-ground. More than half the course being thus devoted to the acquisition of knowledge that has been made ready by others, the remainder is devoted to a training of the student to find knowledge for himself. He chooses a particular topical line that is interesting to him, Colonial History, Economic, Constitutional, or Institutional History, and so on, and then within that field a special subject in which he must work at raw material with the methods of the investigator as far as he can learn them in the time at his disposal. This work is done in small groups in the historical libraries, and it has proved of enormous educative value. The teachers of each special subject are men whose researches lie in that particular field, and, working with only a few pupils, they are able to come into more intimate contact with one another than is possible in large lectures or classes. It is not the tutorial system of Oxford, where a man brings his essays and difficulties to a private interview with his tutor, but in some ways it is a development from it, giving

the additional advantage of the clash of student mind against student mind, and the sense of team working on a common problem. Only a very few students can ever become professed historians, but to them their special subject is the time of their first apprenticeship, when their eyes are opened to the immensity of knowledge. To the majority, their history course is merely a time of training for other work, and their contact with raw unsifted documentary material, such as is daily thrown off by the machinery of Government, is a real revelation of the complexities of life. They make that contact in the intellectual companionship of other minds, and under the leadership of one who possesses the zest for research. Not every student's mind is awakened by the study, some find it disconcertingly lacking in certainty, but the great majority come to regard their optional and special subjects as the most interesting parts of their course, and learn lessons they will never forget. The examinations are conducted in this side of the curriculum by allowing students full access to their books and dictionaries. To the old-fashioned examiner, the idea is shocking, but it enables a real test of the student's capacity to be made.

The Honours system is employed in the

English provincial universities to a less highly developed extent than in Oxford, Cambridge, and London, and in many cases Honours signifies merely the attainment of a higher standard in the general Pass examination. In certain subjects, to obtain Honours, the ordinary degree must be taken first and a further year given to special study or some problem of research. In the Scottish universities, for the ordinary M.A., three years' study is required, but for the M.A. (Hons.), four years, and then in certain universities other degrees are obtained by the same examination, as, for example, at St. Andrews, the M.A. along with the B.Phil. or the B.Litt. The Australian universities have the ordinary B.A. or B.Sc. course in several subjects, with Honours for those who do specially well or take extra work during their course. Generally speaking, the Canadian system is much more akin to that in the universities of the United States than to that of the English universities, but it has characteristic features of its own. The course for the B.A. is partly prescribed and partly elective, but it always demands that a student shall handle many subjects. The prescribed work includes English, History, two foreign languages, one of which is usually Latin, Philosophy, Mathematics, and Science. The other half of the

course is said to be "elective," *i.e.*, the student is allowed to choose certain further subjects distributed among certain broad groups in a specified way which varies in different universities. By taking a specified number of approved courses, he acquires so many "credits," which count towards his degree. Needless to say, with this wide diffusion of interest, the standard attained in each particular subject is not high. The Canadian universities have realised this defect of the American system, and have provided a characteristic system of "Honour" courses. "A student who shows the necessary aptitude is permitted to take special classes, which in some instances are in extension of the regular classes, and in other cases are restricted to Honour students. In some universities the Honour classes are confined to the third and fourth years of the course; in others, as in the case of Toronto, they are given in all four years, and there is also a special Honour matriculation. In general, also, the number of prescribed classes is reduced, so that the student not only goes more deeply into each subject, but specialises to a greater extent than the Pass man is allowed to do."[1] This is a distinct departure from the some-

[1] President A. S. Mackenzie, of Dalhousie, in *Univs. Yearbook of Empire*, 1922, p. 281.

what soulless uniformity of American systems, planned on Prussian models, and in the eyes of Canadian academic authorities it has justified itself as leading in no small measure to the success of Canadian students in post-graduate work. To English eyes it seems an excellent step, but only a step, on the road to the complete liberation of the best students from hampering restrictions.

"As many universities, so many degree systems," is a fair summing-up of their regulations, and it is impossible to enter into the niceties of the superior degrees that reward the studies of those who proceed beyond the undergraduate course. Only a few general statements can be made. The number of those who proceed beyond a first degree in any of the Universities of the Empire is still only a fraction of the numbers of undergraduates, but it is steadily growing, and at least in England it is becoming more and more the case to demand additional qualifications from those who desire to fill the higher and specialist posts. But we can say with truth that no single university has yet come to conclusions on these questions of higher degrees that are satisfactory to every subject alike, and we are still in the experimental stage, trying different devices in different

fields. The demand for a systematisation of this higher work is almost entirely a matter of the twentieth century, and only since 1914 has it grown at a really rapid rate.

The simplest conditions to fulfil in order to obtain a superior degree are those at Oxford, Cambridge, and Dublin. A Bachelor of Arts who has paid certain fees is created Master of Arts at or after the elapse of a definite period from his entry into the university.[1] Thus the M.A. of these universities indicates nothing more than the attainment of the lowest standard necessary to scrape through the examinations for the ordinary B.A. degree, and to know anything of a man's capacities it is necessary to inquire into the character of the degree he has taken.

The M.A. of the Scottish universities is, of course, a first degree, and has already been considered, but the masterships (M.A., M.Sc., LL.M.) of most universities indicate that a further short period of study has been successfully accomplished. In Melbourne, for example, the LL.M. is open to Bachelors of one year's standing, the M.Sc. of Liverpool after a similar period, the M.A. or M.Sc. of McGill after one year of resident graduate

[1] At Oxford in the twenty-first term (*i.e.*, the seventh year) after his Matriculation.

study, or two years of private work after leaving the university, the M.A. or M.Sc. of Alberta after one year's advanced study, and so on. Most universities nominally require a thesis for their masterships, but the demand for the results of original investigation is rather nominal. The general tendency seems to be to require the candidates to undertake one year of really specialised work beyond the first degree course and to stand an examination upon it, part of this examination being conducted on a dissertation or thesis, the subject of which is prescribed by the student's specialist teacher.

Toronto has many candidates for its masterships, and its system is intermediate between the foregoing system and that of the universities where an elaborately specialised Honours system is in full operation. For the ordinary B.A., two years' further study in a special subject is required, but, in the case of a student who has taken the Honour B.A., only one year. The time is spent in one special department in attendance at advanced lectures, and in the preparation of a dissertation or long essay on some aspect of the chosen subject. The most fully established of all the Masterships is probably that of London, whose M.A. has had a high reputation, at any rate in

England, for many years. It is approached in two ways, one being the rule in certain traditional subjects, the other in subjects where the field of research is much wider. As an example of the first method, we may quote Classics and Mathematics. In these, after a period of two years' further study beyond B.A. (usually with Honours in the chosen subject), a searching examination, demanding very wide reading and considerable knowledge of critical method, has to be taken. The examination is even of a more specialised character than that at B.A. Honours, but there are no classes in the list of those successful. The percentage of successes is not high, and the number of persons holding the degree is rather limited. The second method adopted is that in the Science subjects (M.Sc.), and in certain Arts subjects, like History. This last subject may be taken as an example. No candidate is permitted to enter upon the course until he has obtained at least Second Class Honours in History. If he has not attained this standard, or if he comes, as many do, from a university not having the fully developed Honours system, he takes a year of qualifying work (lectures and tutorial classes), and stands his examination at the end. Having attained the standard, he then takes up

investigation under the direction of a specialist teacher for a period of two years. He works upon a problem that he has himself chosen for research, and attends a seminar and various classes in technique. His thesis must embody the results of his investigations, and it is required to make a definite contribution to knowledge. The contributions vary in importance, but the work done is not merely of the character of a student exercise; an element of novelty is usually required, and the thesis is a definite piece of evidence that the candidate has not merely read about methods of research; he has actually used them to some purpose. The work of a group of M.A. students working in a properly organised seminar, or of M.Sc. students in a well-run laboratory, over a period of years, really makes an appreciable contribution to knowledge in their chosen field.

Since 1895 efforts have been made at Oxford to build up a system for the encouragement of research by the granting of the degrees of B.Litt. and B.Sc. after the satisfactory completion of approved courses of special study or research pursued under direction. This direction is given by a supervisor especially appointed by the Board of the Faculty to which the student belongs, but it has in

practice proved impossible for busy teachers, whose main work lies in the training and tutoring of undergraduates, to give more than a fraction of their attention to candidates for the B.Litt. of a more mature age, and with a different outlook. There has been little real apparatus for the encouragement of research, especially in the Arts subjects, and students coming from other universities to Oxford have, as a rule, found it more profitable to take one of the Honours schools than to work for B.Litt. It is generally admitted that the quality of the dissertations submitted has been disappointing, and it does not appear unlikely that a reform of the system will be attempted in the near future. The question of the Doctorate is mentioned in our next chapter.

At Cambridge, the degrees awarded to research students are M.Sc. and M.Litt., awarded after a course extending over two years of research under direction and supervision. A good deal of research is carried on in science subjects in Cambridge, but these superior degrees are not much sought after, and, as is rightly the case, the value of post-graduate work is taken to lie in the contact with and the work done under the eye of some eminent investigator, *e.g.*, in the Cavendish

Laboratory, rather than in compliance with special rules and regulations. Post-graduate study in Cambridge is frequently of the highest quality, but it is very individualist and go-as-you-please. Some of the best research work is that done for presentation as theses in competition for college fellowships, and the competition is so keen and the examination so rigorous that a higher level is reached than can ever be possible for a student doctorate.

Arms of British South Africa Company.

CHAPTER VIII

SIGNIFICANT FEATURES OF MODERN UNIVERSITY DEVELOPMENT

THE assembling of the Congress of Universities of the Empire in London in 1912 marked the beginning of a new era in university development, characterised by measures of co-operation such as had never been known before. These measures led to the foundation of the Universities' Bureau as a central organisation, and of associations of Canadian universities and Australian universities, holding annual meetings for the consideration of matters of common interest. The Vice-Chancellors of the English universities entered upon a plan of periodical meeting for the elaboration of plans to meet common difficulties, and, with the outbreak of war, this simple organisation proved of tremendous importance in facilitating the accomplishment of the tasks that were piled upon the universities. The nations during the years of struggle came to realise that the universities, which they had too much regarded in the light of social centres, or as mere

places for the teaching of the young, were an absolutely vital part of the national economy, where alone could be found the reservoir of trained intelligence and initiative that is needed in modern conflicts. At last their work began to appear in its proper relative proportions, and it became clear to many who had never realised it before that their achievements in post-graduate work and research are the real tests of university eminence. Attempts were begun and plans made to outstrip the German universities and to increase the attractiveness of the English seats of learning to students from the United States and the Dominions who are desirous of undertaking post-graduate work. At the urging of the Canadian authorities, all the British universities agreed to establish a new degree of Ph.D., to be obtainable only by research after a period of at least two years' training. They arranged to assimilate and simplify their regulations for the admission of students from other universities who were candidates for the new degree, and in some cases, but by no means all, they took active steps to provide their professors with increased facilities for the direction of research. But the lapse of five years since the conclusion of the war made these facilities available, has proved the

disappointment of many ill-founded hopes, and has revealed that the best-planned regulations are no attraction to the research student. To-day, as in the past, he chooses his place of study where his materials lie, or a teacher of acknowledged eminence and inspiration is to be found. The numbers of post-graduate students in the greater universities have rapidly risen ; those in the smaller and lesser known institutions have retained much the same proportion to the undergraduates that they had before.

To an even greater extent in the highest work than in undergraduate teaching, certain universities stand out pre-eminently as imperial rather than local. In a sense, every university is imperial, for its doors are open to all and most universities have some department of study in which they have superior attractions. It would be a mistake for a student from New Zealand to come to the University of London or to Oxford to study the latest progress in coal-mining or the metallurgy of steel. He should work in Newcastle-on-Tyne, or in the University of Sheffield, though neither of those places would prove particularly attractive as places of research for students of philosophy or of political science. But the peculiarly imperial university is one that by long

prescription, by eminent advantages of situation, and by the labours of a line of great investigators, has acquired prestige and reputation as a *studium generale*. Universities of this sort attract the greatest and most inspiring teachers from all over the Empire, not because they offer the highest salaries or the easiest conditions of appointment. If financial conditions are at all possible, a teacher of inspiration will neglect them, and go where he can find the greatest opportunities for influence and the most opportunities for meeting fellow-workers in his own field. Thus, though the University of London and its colleges have always been poor institutions that are unable to pay high stipends, they have always been able to pick and choose from excellent fields of candidates for their chairs, because the best men desire to join in the multifarious intellectual activities of the capital. The physicist of real ambition would prefer the Cavendish Laboratory at Cambridge to the richest of chairs in some new university where he knows that a large part of his time must be given to the organising of the teaching of undergraduates. Where the best teachers gather, thither come for similar reasons the most brilliant and ambitious students, unless they are compelled by artificial restraints to go elsewhere. Again we return

to the same fundamental truth. Universities consist of their professors and teachers, surrounded by their disciples, and not of groups of buildings or efficiently designed regulations.

It would be invidious to attempt to arrange the Universities of the Empire in gradation, according to their attractiveness and suitability for post-graduate work, and the task involves those who attempt it in the ridiculous almost before they are aware. In the days not so far removed when the newer universities were vieing with one another in advertisement to attract the research student of whom they desired to know more, it was no uncommon thing to find the salubrity of the climate, the opportunities for yachting, or the charm of local society insisted upon, without a word as to the character of the university library and its contents, the accessibility of laboratory facilities, or the readiness of the university Press to publish monographs. Research and research students, they were willing to admit, were a proper adjunct to any well-conducted university, but the governing body and even many of the academic staff had no real knowledge of the terms they were using, and failed to understand the difficulties they had to overcome. Certain universities undeniably stand

out as pre-eminent for post-graduate work, each in many subjects. To arrange them alphabetically the foremost imperial universities seem to be Cambridge, Edinburgh, Glasgow, London, Manchester, McGill, Oxford, and Toronto. In certain subjects others follow close ; thus Liverpool is prominent in Tropical Medicine, Oceanography, Architecture, and so on, while in particular branches of Applied Science that university is, as a rule, the best place for post-graduate study which is situated in the middle of or close to the industries with which it deals. Leeds for dyeing, Sheffield for metallurgy, Birmingham for brewing, and so on. Agriculture will be better studied as a rule in the Agricultural Colleges of the Dominions than at home.

Universities, in fact, are entering upon a period of specialisation according to their natural advantages. A limitation of field cannot be dictated from outside, or even by a majority of the representatives of universities sitting round a table. It must come naturally and at the desire of those responsible for the fortunes of the university. Unfortunately at times even academic authorities are ill-advised, and enter upon fields of activity that are quite unsuited to them. There are university fashions and fads which are as expensive as

the frills with which some of them may be compared. During the war there was a widespread desire to establish Chairs of Russian parallel with or in substitution for their old Chairs of German Language and Literature. Such chairs can find enough field for their activities and a modest number of students in Liverpool or London, but they are derelict in an ordinary small university. Faculties of Commerce in many universities, both in England and the Dominions, have students in considerable numbers doing low-grade work of a technical sort preparatory to entering commercial life, but they have done little of value because they were established without any real academic inspiration. Public money and private benefactions should be used to maintain a relatively small number of well-equipped universities with a sufficient staff to relieve their leaders of drudgery and set them free for the work that they alone are capable of. The founding of a larger number of colleges or weak university institutions that can only just reach the minimum standard is a frittering away of the very limited national resources that are likely to be available.

But if the number of universities is to be strictly limited, and the great majority of them are to specialise along particular lines for

everything but undergraduate teaching, how can the best students find access to the highest work of which they are capable? The answer is of great importance, and it can be given unhesitatingly—by the facilitation of migration between the universities of the Empire and by the provision of travelling scholarships that can be held wherever the student can best accomplish the work he wishes to do. Travel is valuable in itself, and at one time there was much discussion between the universities of the Empire as to the facilitation of the migration of undergraduates, but there is now a large consensus of opinion that this should not be encouraged. In some exceptional cases an undergraduate may be compelled to move from one part of the Empire to another in the middle of his course, and then arrangements ought to be made to ensure that he does not suffer, but such cases are very few. The undergraduate who moves about becomes unsettled, he loses the benefit of study among his own natural surroundings, and it takes long for him to adapt himself to a new atmosphere. But with the graduate it is entirely different. If he remains for a year after graduation in his own university to become familiarised with specialised work and take Honours or an M.A. degree, he will at once be able to settle

down in the great centre of investigation to which he proceeds. His research work has become an integral part of his life, and in that work he finds common ground with his fellows regardless of the different scenes around him. The research student is a much more serious person than the undergraduate, he is more mature, and social life, which fills so rightly an important part of an undergraduate's time, has less attractions for him. There has always in recent years been a flow of graduate students from the Dominions and India to the English and Scottish universities, and a certain trickle in the opposite direction, though most students from the British Isles have gone to the Continent or the United States. Both movements are growing, and it is to their increase that the minds of many university authorities are turning.

England is provided with a much more elaborate scholarship system than most other parts of the Empire, and Scottish students now receive a great deal of help and many bursaries and fellowships from the Carnegie Trust. But most of the scholarships are for the education of undergraduates, and it is only of recent years that travelling scholarships for graduates have been endowed in any numbers. Perhaps the earliest were those

established by the Commissioners for the 1851 Exhibition, which are confined to students of Natural Science, and Whitworth scholarships of a similar kind. But the most celebrated of all scholarship systems is that of the Rhodes Trust, founded in 1902 under the will of the late Right Hon. Cecil Rhodes. These are tenable only at Oxford for a period of three years, for in founding them Mr. Rhodes expressed the view that the education of young Colonials at an ancient residential university would "broaden their view, instruct them in life and manners, and instil into their minds the advantage to the Colonies as well as to the United Kingdom of the retention of the unity of the Empire." They are not strictly, or even in the majority of cases, research scholarships, for though the candidates must be of two years' standing in a degree-granting college or university, most scholars find it best to take one of the undergraduate Honours schools when they come to Oxford. There are continually in residence in term 190 scholars, including those from the United States. An annual scholarship is assigned to each Province of the Dominion of Canada, to each State in Australia, to New Zealand, and about ten to South Africa, including Rhodesia. Jamaica, Newfoundland,

Bermuda, have each an annual scholarship, though they have no universities, and Malta now has a scholarship. The conditions of the competition in each country or community vary according to circumstances, and are dealt with from time to time at the discretion of the trustees.

Real research scholarships are now being founded in increasing numbers, some being tenable only at the institution offering them, and being open alike to graduates of that institution as well as to others. The great majority of the studentships at Cambridge are of this kind, and most are given for investigations in Natural Science and Medicine. The research funds and studentships of the University of London are also to a very large extent earmarked for the same subjects, but usually the holder may work wherever he pleases in an approved institution. The Senior studentships of the Exhibition of 1851 are tenable either in the United Kingdom or abroad, and most of those holding them travel. The Rome scholarships for Architecture, Sculpture, and Decorative Painting must be held at the British School at Rome. The Beit Memorial Fellowships for Medical Research for three years, and the Ramsay Memorial Fellowships for Chemical Research

may be mentioned as those endowments with the most modern regulations which allow their holders entire freedom to work where they can best accomplish their task.

One of the most useful academic endowments is that of the "Albert Kahn Travelling Fellowships." These are awarded to British subjects, men or women, who are graduates of a university in the United Kingdom, to enable those who are "of proved intellectual attainments to enjoy during one year or more sufficient leisure and freedom from all professional pursuits or pre-occupations to enter into personal contact with men and countries they might otherwise never have known; to issue from the world of books and their narrow sphere of habitual interests into the broader world of various civilisations, and all such human interests, struggles, and endeavours as go to the making of general civilisation." The most brilliant among the younger members of the academic staffs are usually elected to the fellowships, and they have proved of immense value in enabling them to see the world. It seems as though it would be on lines somewhat following those laid down by M. Kahn that future research fellowships in new fields might be endowed. It is very good to bring men from the Dominions to study in

British universities after the fashion of the Rhodes Scholarships, but it is at least as important to enable men and women from the United Kingdom to see the outer lands of the Empire, and to work for a time in universities managed on a different plan to their own. Ancient universities perhaps have a tendency to be rather self-satisfied, and to feel that while they have much to give to people from newer universities and newer lands, they themselves hold a unique position and can learn nothing elsewhere. To overcome such prejudice nothing but academic migration can avail.

The greater part of the endowments and grants to the universities that have come in recent years have been allocated to the provision of the enormously expensive laboratory buildings and equipment that are incessantly demanded by the workers in natural science and medicine, and where the funds have been applied to the furtherance of research by scholarships or grants, these have mostly been allocated to workers in the same fields. But if the subjects of the humanistic curriculum are to live, research in them is as necessary as in other fields. Political, economic, and statistical science, history, and commerce, all demand equipment for libraries, periodicals,

facsimiles, photography, etc, and endowment is necessary for their maintenance and for the provision of research fellowships in the same way as in natural science. The demands are less exacting and less expensive, and perhaps for that very reason they are less listened to in some modern universities, whose governors tend to neglect anything they cannot see, and who imagine a library to be necessarily nothing but a mere store of useless dead learning. In the pioneer institutions, however, the need is fully realised, and perhaps the most prominent examples of endowments directed to facilitate research in the fields of political science are those of the Cassel Trustees for Commerce and allied subjects, including History and Law, the Ratan Tata Foundation for Sociological Research and the endowment of the Institute of Historical Research, all of which are centred in the University of London. In the subjects of political science, travel for the purpose of research and experience is more necessary than in subjects like Chemistry and Physics, where a man's work must be done round his own laboratory and with his own apparatus ; the provision of travelling scholarships and fellowships is therefore an important part of the work of the new foundations, and it is to be hoped that as the value of their

experience becomes known, other universities and various state governments will provide like facilities.

To make the whole university world of the British Empire one, not only the interchange of research students must be provided for; there must also be migration of teachers, and the facilitation of this has attracted much attention during the period since the Universities' Conference of 1912. There has always been some measure of migration by the gradual processes of promotion. An imaginary example can illustrate this. A man who was born and educated in New Zealand passes on for research to Cambridge, is then appointed to a junior lectureship in Glasgow, thence to an assistant professorship at Toronto, to a full professorship at Cape Town, whence he is promoted to Manchester, and finally once more to Cambridge; such a man has seen more of the life of the Empire from the inside than any one but a Colonial Governor. Cases of the sort are not rare, and they are the best of all forms of exchange, but they might well be supplemented. The proper means of facilitating exchange is now provided in the Universities' Bureau in London, and through that body men of the grade of Assistant Lecturer, say, at about the age of 30, may

often find appointments for a year or so in different parts of the Empire. Unfortunately, however, university regulations and difficulties as to superannuation stand very much in the way. It is almost impossible to arrange exchanges with the Indian universities because of the special nature of their conditions and the rigidity of the rules governing absence from the Indian Educational Service to which many of the professorships belong. At one time an experiment was made for some years in getting English or Scottish professors to lecture in the University of the Punjab during the so-called "cold weather," but it was not particularly successful. The Indian students desired to be coached to pass their examinations, the professors from Great Britain desired to lecture on new aspects of their subjects, and the two desires were incompatible.

However, the interchange of teachers between the universities of the Empire is probably still to be regarded as in a very rudimentary stage. Its difficulties have been more noticed than its advantages, and the universities of the Dominions have so far desired rather to exchange with teachers at Oxford and Cambridge, where the system is not comparable with their own, than with the modern English universities of which they know much less.

But interchange is not only advisable between the Dominions and the home country, interchange between the Dominions themselves is also desirable. If a teacher from Stellenbosch could exchange his post for a time with one in Winnipeg, or a man from Dalhousie or Queen's with his fellow from Western Australia or Queensland, and in each of those places they could meet men from Edinburgh or Leeds or Bristol or Rangoon, there is little doubt that there would be mutual advantage. To the present academic generation the vision may seem somewhat fantastic, but now that each part of the self-governing Empire has properly organised universities, with interchangeable systems and curricula, professional migration on a considerable scale is by no means beyond the bounds of possibility.

It is impossible to conclude a survey of modern movements in the universities of the Empire without some reference to their extramural work and their courses for the adult citizen which have become so important a feature during recent years. The survey can, however, be little more than the mere mentioning of some outstanding features. There are three direct ways in which the universities carry their teaching to men who are outside their membership, all of which have been the

production of the last fifty years :—(1) The University Extension system and its Summer Schools ; (2) the Workers' Educational Association and allied activities, and lastly (3) the Public Lectures which have become so important a feature of the work of the civic universities during and since the war.

University Extension Lectures began in 1867 with classes started by Prof. James Stuart of Cambridge in certain towns in the north of England. He worked out a system of organisation whereby the work should not merely be of a recreative character, but by means of tutorial work and examinations should ensure solid achievement. The University of Cambridge set up a syndicate to manage these local lectures in 1873, and London a University Extension Society in 1876. Oxford joined with a similar system in 1885, and it was from these sources which concerned themselves almost entirely with the Humanities, that a corrective was obtained for the warping of the educational system towards a narrow teaching of Natural Science that, as was mentioned in an earlier chapter, characterised the last twenty years of the nineteenth century under the prompting of Huxley. The early work of the University Extension Movement was naturally of very uneven quality. In some

centres and in the hands of some teachers of inspiration from the universities it rendered services of the very highest to the diffusion of culture and to the lifting of the ill-educated middle classes of the eighties from the slough of materialism. But in others it became a fad for the idle maiden lady, and its lecturers were sometimes men of the hack type, who were doing this type of teaching for a living, and were quite out of touch with the stream of learning, and merely grubbed up their lectures from text-books. The system was originally designed for the working classes, but, like the Mechanics' Institutes of an earlier generation, it soon lost its hold upon them in most centres, and became a system of local lectures for persons of the clerical and managing classes. In recent years, however, it has found new spheres of activity of great value. The first lies in the organisation of Summer Schools, especially at Oxford and Cambridge, and in Canada, according to American precedents. These are attended by adults of many types and occupations, with probably a majority of teachers engaged in primary and secondary schools, who use them as refresher courses. In England and in Canada this work is rapidly growing; the work done is solid and of a really university character, and its value lies in its vivifying

influence on education of all grades. Some university teachers of an inspiring sort like to undertake during a part of their vacation teaching of a kind so different to their ordinary work, although to others it is distasteful and wearing ; but while it remains entirely voluntary, it will attract sufficient teachers of the right sort, and will continue to prove a unifying and refreshing influence of great value. If it acquires an organisation and a teaching staff of its own, or if it becomes obligatory upon the university teachers to undertake it, it will become barren for its own purposes, and detract from the real work of the university in training and research.

The second new departure of the University Extension Movement began in the University of London about 1910, and has there attained its maximum development. This is the scheme of Diplomas in the Humanities which is designed to meet the requirements of students who, although they are not intending to graduate, have nevertheless a desire to carry the study of some subject more deeply than is possible by attendance at short courses of lectures. Under the Diploma scheme, definite courses of study in a subject (*e.g.*, English Literature, History, History of Art, etc.), are arranged, covering a period of three years,

the work of each year being tested by an examination. After the three years' work has been completed, the student proceeds to a fourth year's work of a more specialised character, for which the preceding years have laid a sound foundation. The work may be carried on either at a school of the university (*e.g.*, the Evening School of English at King's College, History at University College), or at some other institution approved by the University (*e.g.*, the Institute of Journalists), or at a University Extension centre. At the end of the fourth year's course a final examination on the whole of the work done leads to the grant of the Diploma, but many persons take the courses who never proceed so far. The benefit they derive is not a paper qualification, but an outlook on intellectual things that rewards them amply in the general drabness of life.

While the University Extension Movement during the last fifty years has undoubtedly done real service to the diffusion of learning in England and now seems to be entering a new period of activity in fresh directions, it cannot be denied that it has failed to accomplish many of the high hopes of its early supporters, and outside England it proved a comparative failure. The extra-mural

activities of the Canadian universities have been carried along different lines, and in Australia the movement in its original form left the mass of the population untouched. Even in Wales it did little to bring the life and thought of the University Colleges into touch with the people, and everywhere, though its enthusiastic advocates pointed proudly to the centres where good work was being done and the courses were attended by people of all ranks, unprejudiced observers felt that such examples were the exception rather than the rule. A new start was needed on lines that were less imposed from above. Such a start came when by the spontaneous efforts of the workers themselves, led by Mr. Albert Mansbridge, the Workers' Educational Association, with its system of Tutorial Classes, began in Lancashire and elsewhere. The aims of the movement were the same as those of earlier efforts, but the essential difference has been that the workers are given an equal share in the conduct and arrangement of the classes to that of the academic authorities. For a period of twenty years the English universities have been devoting considerable effort and the Government and the Local Education Authorities considerable funds to the fostering of the work, but even yet it is too early to say whether it will

prove permanent, or whether, like its predecessors, it is dependent for its success upon the enthusiasm and enterprise of a few organisers and teachers. The Australian universities, too, have taken up the movement with vigour, and large sums have been devoted to it from public funds, with the occasionally unfortunate effect of starving other sides of university work. But some of the shrewdest observers have expressed doubts whether the results obtained are commensurate with the efforts and expense, and whether the attraction of the "workers" has not been rather to the obtaining in the Economics courses of material for political propaganda than to really cool and scientific study. An immense fillip to adult education was given by the classes organised by the Y.M.C.A. with the help of the universities in the armies during the war, but we are still too close to those years to tell what results have been achieved by such efforts, and by the "Khaki University" organised for the Canadian forces by Dr. H. M. Tory, President of the University of Alberta.

It is in the Western provinces of Canada that fresh efforts are being made by the new State universities, and these are somewhat different from what we have been considering. The university establishes a special department

with a definite programme to carry its work to the scattered population of the different parts of the province. Community Leagues are started in every farming or urban community, and a staff of lecturers is continuously employed in providing instruction for these and other clubs, and for lectures to Boards of Trade and other organisations. Work is also conducted in connection with Farmers' Societies and Clubs in general subjects, the technical side of agricultural education being dealt with by the Agricultural College of the province. The university library manages along with the Extension department the circulation of travelling libraries in a way which is reminiscent of the Peel Fund established under the management of the University of London Library seventy years ago by the penny subscriptions of working men as a testimonial of gratitude to Sir Robert Peel for his abolition of the Corn Laws. This work in England and Scotland has been much extended by the activities of the Carnegie Trust, but in Western Canada it must be done by the universities. Great public questions of present interest are discussed in meetings arranged in the school houses by the University Extension organisers in concert with the local teachers and debating societies, and in similar ways the activities of the

university are carried out to every part of the community, and the people come to look up to the central institution as the nucleus of the intellectual activities of the whole province.

A similar result is achieved in the great urban centres throughout the Empire by the provision of free public lectures of all kinds delivered in the evening in the lecture halls of the university. Such lectures have been delivered from time to time in certain urban universities for many years, but it is especially during and since the war years that they have had an immense expansion. The lectures are delivered by the best men among the academic staff and by scholars from outside who are experts in their subjects, as an entirely free gift to the community without restrictions or obligations. Many among the professoriate are coming to regard these public lectures as an integral and interesting part of their work, and while they find the giving of lectures elsewhere than in their own institution a burdensome task that demands so much energy as to take them from their proper work, those who have the expository gift, which is less rare in professors than has sometimes been imagined, are pleased to give an occasional public

lecture or a series in their own lecture halls.

"Public lectures" in this connection does not mean "popular" lectures of an elementary type, nor does it mean the delivery of papers such as are read before technical institutions and learned societies. They are something between the two, and range from "advanced" courses of lectures summarising the most recent discoveries in some special field of study which are attended by the university students of the subject and those who are technically interested, to lectures on modern foreign politics. Literary, historical, and political lectures attract larger audiences than do those in natural science, and the audiences include men and women of every rank in society. In London, at any rate, a real "forum" has been provided by these public lectures for the discussion of questions of moment in the cool atmosphere of scholarship, and the tradition is such that persons of all classes and creeds and political parties lecture without heat, and come to listen rationally in a way in which they rarely do outside the university. In the earlier days of the movement the press paid no attention, and audiences had gradually to be built up by the colleges by their own unaided efforts. To-day the press regularly announces the

public lectures as a consistent feature of London life. The passers-by in the street read the announcements on the college gates, and have come to know that, as a matter of course, they may, if they will, turn in and hear an expert discoursing upon his own subject. In the session 1922-23 more than twenty-five thousand persons attended public lectures without fee in three colleges of the University of London (University, King's, and School of Economics), besides those who attended the similar but less frequent lectures in the smaller colleges. Other universities, and notably Manchester, are doing similar work, and in the Dominions something of this type goes on, though perhaps it has hardly such a wide appeal. It is the extension of adult education to the citizen in its best form, and the method has now established itself so securely and spontaneously, and at so small an additional cost, that in London it has undoubtedly become one of the most important means of bringing the university before the minds of the people. Work of this sort can only be done in the centre of a great urban population from which the audiences may be drawn, and it is impossible in towns that are practically annexes to universities, like Oxford and Cambridge. Specialisation to fit circumstances therefore arises

between the universities in this field, as in others, and such specialisation is an indication of healthy life and growth, and a sign that the universities are real factors in the progress of the community.

Arms of Tasmania.

CHAPTER IX

THE EDUCATIONAL SYSTEMS OF THE DOMINION OF CANADA AND OF NEWFOUNDLAND

To treat of the educational systems of the Empire in a similar way to that adopted for its universities or upon an even slighter scale, would demand much detailed historical investigation, and the tracing of streams of influence that have never yet been studied in a connected way. It would call, too, for space for presentation of its results that would fill a considerable volume, and we must therefore adopt a different method of treatment and confine our attention in the main to a description of some outstanding features that exist to-day in the principal parts of the Empire overseas. The educational systems of the United Kingdom have been so frequently described in accessible authorities, and are so generally familiar, that no space need here be spared for them, but it must be insisted that, save in French Canada, the educational systems of the outer Empire are the modified derivatives of the English and Scottish systems, and

mainly the former, as it has been evolved in the nineteenth century. Colonial systems bear many marks of the past struggles and compromises that have accompanied the growth of governmental control of education in the central islands. Educational experiments in the United Kingdom have been watched with care, and applied to colonial circumstances wherever possible, so that amid the many superficial diversities of the educational systems of the Empire, there is yet a closely knit and underlying unity.

Education in the Dominion of Canada is a matter reserved for the provinces by the British North America Act of 1867, which brought about confederation, but the echo of much past controversy is to be found in the provisions of the Act, for they embody a carefully worded compromise between opposing interests. The rights and privileges of denominational and separate schools have given rise to more conflict in Canada than they have done even in England or Ireland, and in order to conciliate opposition it was necessary for the framers of Confederation to safeguard all rights as existing at the time of union, or the admission of a new province to the Confederation. Nevertheless many difficulties have arisen as to the proper interpretation and

carrying-out of the clauses, and the smooth course of Canadian educational development has often been impeded. In general, there are two fundamental systems of education throughout the Dominion, the first that of the Protestant communities, which is independent of clerical control, and the second that of the Roman Catholic French and Irish communities, in which education is united with the religious teaching of the Roman Catholic Church.

Naturally the Roman Catholic system finds its fullest development in the province where some of its earliest roots were planted as far back as the end of the seventeenth century, in the time of the French régime. There was little definite organisation and no State assistance to education, however, until British governors had been ruling the province for seventy years. In 1836 the division of the province of Quebec into school districts was begun on the initiative of the British officials, having probably received an impetus from the efforts that were being made at the same time in England to improve primary education. In 1841 a Department of Education was established, and in 1846, with the approval of the Colonial Secretary, the Earl of Elgin, an Act was passed establishing the basis of the

modern school system. The school organisation of the whole province is now in the hands of a Council of Public Instruction, whose presiding and executive officer is the Superintendent of Public Instruction. The council consists of two sides, each organised as a committee for looking after the particular interests with which it is concerned. On the one side are all the fifteen Roman Catholic bishops or Vicars Apostolic of the province, with fifteen Roman Catholic laymen appointed by the Crown, *i.e.*, the responsible Provincial ministry. On the other side are fifteen Protestant members, clergy or laymen, who are similarly appointed. School questions in which the interests of all denominations are collectively concerned are decided by the council as a whole, but normally the two sides meet separately, and each committee has full and independent jurisdiction over the schools of their own faith. The Roman Catholic Committee has, in addition to the full members of the council, four associate members, two of whom are principals of normal schools and priests, and two are administrative officials and laymen. The Protestant Committee has six co-opted associate members and one elected by Protestant teachers throughout the province. Subject to the general approval of the

Provincial Government, the committees make regulations for the organisation, administration, and discipline of the schools, their inspection and examination, and for the training of teachers. The work of inspection and central administration is carried on by the Superintendent of Public Instruction, assisted by two Inspectors-General, one Roman Catholic and one Protestant, who serve upon their respective sides.

The unit of local administration is the school district (school municipality) into which the province is divided solely for educational purposes. In each district, save in the cities of Montreal and Quebec, the board governing the schools consists of five commissioners elected by the ratepayers to serve for three years. Where there is a religious minority, they may establish schools of their own, independently of the commissioners, and these are governed by three trustees elected by the dissentients. The support of the schools is provided from three sources, the sums raised by local rates assessable on all property within the school district, the grants of the Provincial Legislature from the general treasury, and the fees received from the parents of scholars monthly in respect of every child who attends or ought to attend the public schools. In the

city of Montreal the school boards are not elected, but appointed, and there is considerable difference between the Protestant and Roman Catholic schools. In the former, elementary education is free for Protestant and Jewish children, and the rates assessable are fixed, not by the Commissioners, but the Legislature. In the Roman Catholic elementary schools in Montreal as elsewhere throughout the province, fees are charged at the average rate of about twenty-five cents a month per child, but these fees are really of the nature of a poll tax, for they are collected with other rates, whether the children attend school or not. School attendance is not compulsory, though the general school age is understood as from seven to fourteen. No child can be excluded from the primary schools by reason of the non-payment of fees by his parents. The division of schools into Catholic and Protestant amounts in practice to a division by language, the language and methods of teaching in the Catholic schools being French, while that in the Protestant schools is English, and the methods are closely assimilated to those in the other Canadian provinces.

The training of teachers in the Province of Quebec is not very completely organised. Most teachers must hold a certificate or

diploma, but ministers of religion and the members of a religious community of either sex that is instituted for teaching purposes are exempt from this regulation, and a considerable amount of teaching in Roman Catholic schools is undertaken by members of such communities. Several normal schools exist under the control both of the Roman Catholic and of other churches, and teachers are also trained professionally in the Department of Education at McGill University and at the Anglican Bishops' College, Lennoxville.

The system of secondary education in the province is just as sharply divided as that of the primary schools. On the Roman Catholic side, the most distinctive institutions are the Classical Colleges, which are not localised, but are carried on under the direct control of the Roman Catholic bishops of the various dioceses, and only receive a comparatively small amount of assistance from the State. They are residential, and are entered at the age of about twelve to fourteen by boys who remain there until they have taken their *baccalauréat* and pass on to the professional schools of Laval or Montreal, with which universities they are affiliated. The staffs of these colleges are almost entirely clerical, and they do work of every grade, as measured by

English standards—primary, secondary, and even junior university work. Next there come the Roman Catholic local and non-residential secondary schools. These are provided in populous districts by the local school boards, and they are supported by rates, Government grants, and the pupils' fees. Beside them are a smaller number of so-called "independent" schools, which are boys' schools under the direction of communities of friars, and girls' schools under nuns. They are supported by endowments, Government grants, and fees, but like the local schools, which are often also staffed by teachers in religious orders, they are subject to Governmental inspection, and have to obey the regulations of the Roman Catholic Committee of the Provincial Council of Public Instruction.

The Protestant secondary schools of the province have close analogies with English schools, and the high schools of Montreal and Quebec, which are the descendants of foundations established by the British Government at the beginning of the nineteenth century, are reminiscent of the great English grammar schools. There are also certain boarding-schools maintained by the Anglican and Wesleyan Methodist churches, and probably a majority of the pupils from all these schools

ultimately proceed to the universities, notably McGill. Maintained by the local school boards there are intermediate or so-called "model" schools and "academies," which correspond to similar English types. Their financing and system of inspection are provided for as in the primary schools, and they are considerably swayed by the educational experience of the predominantly English-speaking Province of Ontario.

It is in Ontario that Canadian education has reached its highest development and has acquired its most characteristic features, which are reminiscent of but also diverge from British models and those of the neighbouring states of the American Republic. It was not until the influx of the United Empire Loyalists after the Revolution that there was any settlement to speak of in Upper Canada, as Ontario was then called, and by 1797-8 large areas of Crown lands were set apart for the endowment of four grammar schools in the colony, after the pattern of the ancient English schools. Primary education, however, was not organised on any considerable scale until Dr. Egerton Ryerson became Superintendent of Education in 1844, and the system owes an immense debt to his efforts during a tenure of that office for a period of more than thirty years.

There has been a good deal of difficulty in Ontario with regard to Roman Catholic schools, and only by the Public Schools Act of 1909 and the Separate Schools Act of 1913 has some measure of agreement been arrived at. These Acts authorise the establishment of a system similar to that of Quebec, whereby any number of heads of families, not less than five, being resident Roman Catholics, may unite and establish a separate school independent of the school district. Trustees are established for the government of the separate school, and its supporters are exempted from the payment of rates for the ordinary schools.

Putting aside these schools as somewhat different, it may be claimed that the Ontario system is closely articulated in all its parts. Primary education is free and compulsory for all children from eight to fourteen, there is a complete system of inspection and regular examination controlling the passage of pupils from the primary to the secondary schools. The educational system of the province is under the general supervision of a Department of Education, presided over by a political Minister of Education, who is a member of the Provincial Cabinet. The permanent head of the Department is a civil servant, the Deputy Minister of Education, and the executive

direction is entrusted to a Superintendent of Education. The whole province is divided into school districts, in each of which there is a board of trustees elected for the purpose of providing, equipping, and maintaining the schools and generally looking after their government. There is naturally considerable variation in the responsibilities attaching to such trustees, between remote rural districts and the great cities, but the general principles remain the same and it is unnecessary to enter into details. The financial support of the schools is derived from three sources, Government grants from the Provincial Treasury, rates assessed upon property over the whole area of the county, and assessments raised in the school district. The primary schools are undenominational (save for the "separate" schools), but religious teaching of a simple kind is admitted, with the safeguard of a conscience clause.

The training of teachers is amply provided for in Ontario, and every permanent teacher throughout the education service must hold proper certificates. The highest posts are reserved for those trained in the Departments of Education of the universities, but certificates of lower grade are obtainable in county model schools and in certain normal schools scattered

throughout the province. Many scholarships are granted by the Government, enabling teachers to travel and to acquire further education in France and Great Britain.

Secondary education in Ontario is provided in three classes of schools. There are private schools, mostly of high quality, and some comparable with the best public schools in Great Britain. Probably the most celebrated school for boys in Canada is Upper Canada College, where generations of the leaders of Canadian life have been trained. The Royal Military College, Kingston, performs for the Dominion the functions of Sandhurst, but it also educates many boys who do not take up the army as a profession. The greater part of secondary education throughout the province is provided by high schools (a term derived from Scottish practice) and collegiate institutes, the latter having superior equipment and being better staffed. They are governed in the same way as the primary schools, by boards of trustees, but serve a wider area, from whose taxes they derive support besides their fees and Government grants. Practically all their teachers have not only had a university education, but also hold certificates of training.

Besides its primary and secondary schools,

Ontario also possesses a highly developed system of continuation schools, evening schools, especially in the large towns, technical and industrial schools, whose practice is parallel with that of the similar English institutions, and various art and trade schools. The Annual Reports of the Department of Education, which can be obtained on application to Toronto, abound with facts and figures concerning educational experiments in the province and elsewhere, and are among the most useful of such publications. In the sphere of agricultural education, Ontario deservedly stands very high. Dairying, stock raising, fruit farming, and poultry rearing are all dealt with in various grades, and the work centres round the agricultural colleges of the province, and notably the Ontario Agricultural College at Guelph. To outside observers, perhaps the greatest defect in the educational system of the province appears to be one that is common in Canada, the undue organisation of curricula and the insistence on the use of specially prepared text-books. The initiative of the teachers is hampered in a way that is certainly not characteristic of the best education authorities in England, and while the average level may be raised by strict regulations as to curriculum, it may be doubted whether they

encourage the emergence from the general ranks of the best brains, either among teachers or taught. The influence of neighbouring American systems probably encourages the unfortunate tendency to over-administration in Ontario and the other provinces that follow its lead.

The system of education in the Maritime Provinces (Nova Scotia, New Brunswick, and Prince Edward Island) does not differ much in principle from that in Ontario, but in each the Provincial Cabinet or some of its members forms the Council of Public Instruction. The provinces are divided into school districts, each with a specially-elected board of trustees. For secondary education, districts are associated in the provision of grammar or high schools and the universities are closely connected with the organisation of the work. Education is non-sectarian and is free, both in primary and high schools, and in Nova Scotia the highest classes of secondary schools or "county academies" admit properly qualified pupils to free places. There are common provincial examinations for the schools of various grades which are supervised by the Departments of Education, and are held in the last week of each of the two terms into which the school year is divided. The certificates obtained in

these Governmental examinations are recognised as the passport of entry to institutions of higher education and for the course of training for teachers which is universally insisted upon for those who wish to enter the educational profession. Here again the tendency to over-emphasise uniformity of method that was mentioned above may perhaps be not altogether conducive to the development of the greatest degree of originality and enterprise.

There is such a general similarity in the educational systems of the provinces of Western Canada and of British Columbia to what has already been described that little need be added. Education, both in primary and high schools, is free and generally unsectarian, but there has in the past been a good deal of difficulty about the establishment of "separate" Roman Catholic schools in Manitoba. In Alberta there are provisions for the establishment by minorities of schools, whether Roman Catholic or Protestant, and in some instances, where non-English-speaking communities are indifferent to education, the Provincial Government may appoint an official trustee to undertake all the duties of a school board. The presence of large and compact bodies of settlers in the prairie provinces who have come from

backward European countries and have none of the instinctive demand for education of the average Canadian, imposes a very difficult task upon the Government. Special provisions have to be made to cope with these difficulties and to train the new settlers for British citizenship. The scale of Government grants is so arranged that the newly-organised district receives a larger grant than the older district, and as a community grows into a populous centre it is gradually thrown more and more upon its own resources for general education. The task of assimilating foreign immigrants is a tremendous burden, for the percentage of illiteracy among them is very high, and there is a great reluctance to have their children educated at all. Thus, whereas in 1910 the percentage of children attending school between the ages of ten and fourteen was, in Ontario and the Maritime provinces, about eighty-five per cent. and in Quebec was seventy-nine per cent., it fell in Saskatchewan to sixty-eight per cent. and in Alberta to sixty-five. The fall is almost entirely in the non-English-speaking districts, and the task of obtaining properly qualified teachers to work there is most difficult. Amid all the immense achievements and the future promise of education in Canada, this problem is probably the most

dangerous and insistent. "Canadianisation" of foreign stocks is at least as necessary and demands as much thought to the north of the international border as "Americanisation" does to the south of it in the United States.

NEWFOUNDLAND

Though Newfoundland is one of the oldest of the British colonies, the circumstances of its history during the later seventeenth and the eighteenth century made its population more neglected in matters of education than almost any other part of the Empire. The people were scattered in isolated fishing settlements strung out along the immense coast-line of the island, so that communication between them was only possible by sea, and during the long winters they were quite cut off from one another and from the world. The neglect of the fishermen in the ministrations of religion and the provision of teaching for their children moved the Society for the Propagation of the Gospel to attempt its remedy, and in 1726 they established the first school in the island in Bonavista under the charge of their missionary chaplain, and in 1744 they established a similar school at St. John's. From then

onwards down to 1823 the Society set up schools one by one in other harbours, and besides supplying them with books and keeping their buildings in some sort of repair, they also defrayed the small stipends of the schoolmasters from their funds, the fishermen only being required to pay fees in fish for the children attending. The schoolmasters did an immense service to the colony, for among the rough fishermen their civilising habits and Christian character made an indirect influence for the uplifting of daily life that cannot be reckoned of less value than the direct instruction they gave, both in school and as the "Readers" who conducted the daily Sunday services. Judging by modern standards, the efficiency of the schools would seem low, but they effected a great work with very modest means. In 1823 Samuel Codner, a public-spirited merchant who had long been resident at St. John's, determined to extend the work on a wider and more systematic scale, and he was successful in enlisting public support in England for a "Society for Educating the Poor of Newfoundland," the purposes of which were stated to be the provision of "the elements of social and moral institutions that are in a great measure wanting in Newfoundland. It is by encouraging education among the lower

classes and affording them Scriptural instruction that the Society hopes, under the blessing of Almighty God, to supply in some degree this lamentable deficiency."

The Society was assisted in its plans by the Home Government, which made grants of land for the maintenance of the schools, provided free passages for the teachers from England on ships of war, and also gave pecuniary assistance. Teachers were sent out from the National Society's Training School, and by the introduction of a monitorial system they rapidly succeeded in establishing schools where none had been before, and the various outlying settlements were stimulated to erect school buildings for themselves.

In 1836, four years after the colony received representative government, the Newfoundland Legislature made a grant from public funds to the support of the schools, and the Society (now called the Colonial and Continental Church Society) handed over some of its work in the more populous centres to locally-appointed boards of education. It had made no attempt at proselytising, but opened its schools freely to children of all religious denominations. Meanwhile the Wesleyan Methodist missionaries had also begun to attempt to found both Sunday schools and

day schools where none existed, and they generally supplemented the work of the society. Some Roman Catholic schools, too, had been established, and the Government grant was divided proportionately to assist each of the agencies in its work. In 1850 three secondary schools were set up at St. John's, one for the Church of England, one for other Protestant denominations, and one for Roman Catholics, and a little later it was provided by Act of Legislature that no teacher in the public schools be allowed to impart to a child any religious instruction objected to by his parents or guardians.

In 1874 a further step forward was taken towards the systematic organisation of primary education throughout the colony, and a religious census of the colony was undertaken to establish a basis for the allocation of the moneys granted by the Legislature among the various religious denominations according to their numbers. Inspectors were appointed for the supervision of the Church of England, Roman Catholic, and Methodist schools, and the inspection of schools belonging to other Protestant denominations was undertaken by the Church of England and Methodist inspectors acting alternately. On the basis thus established, several further legislative enactments

have been made, among others that of the Education Acts of 1916 and 1920, but, generally speaking, the structure of the denominational system of education was not radically changed.

The central administration is vested in a Department of Education presided over by a Minister of Education, who is a member of the Executive Council or Cabinet. The colony is divided into eleven school districts, each with a District School Supervisor. In each district respectively, coincident with the several ecclesiastical jurisdictions of the clergy of the various denominations, there is a board of education appointed by the Government, and including the resident clergymen. They manage the appropriation of the sums granted to their districts, and look after school affairs generally. There are three Superintendents of Education belonging to the Anglican, Roman Catholic, and Methodist Churches respectively, and all the schools are denominational. Fees are charged to the parents of scholars, but there are no school rates and the main source of income is the Government grant. Owing to the scattered nature of the population and the defective means of communication, it is impossible to enforce compulsory attendance on all children in the colony.

Secondary education is fostered by a council of higher education, and Government grants are made to the schools established by recognised agencies. There are very few private schools in the colony, almost all in St. John's. The colleges, as the principal secondary schools are called, are similar in management and curriculum to the smaller English grammar schools, and they present their pupils for the examinations of the Council of Higher Education, which are generally modelled on the school examinations of the University of London. All candidates for teaching posts, irrespective of the denomination whose schools they will serve in, are required to obtain certificates of education in the council's examinations. Some Roman Catholic schools are managed by the Christian Brothers, and there are various convent schools. Each of the three principal denominations has spent large sums upon its colleges, and considerable voluntary contributions are made to the support of schools of all grades, and the denominational system seems to be generally popular.

CHAPTER X

THE EDUCATIONAL SYSTEMS OF THE COMMONWEALTH OF AUSTRALIA AND THE DOMINION OF NEW ZEALAND

As in Canada, so in Australia education is one of the subjects reserved to the Governments of the States, and forms no concern of the central Government of the Commonwealth. In all the Australian states alike educational organisation is a difficult problem owing to the peculiar distribution of the population. With the exception of Tasmania, every Australian state has a large proportion of its population living under highly-developed urban conditions, and the rest scattered sparsely over a very wide area. Thus in New South Wales two-fifths of its population of just over two millions live in the 142 square miles comprised in Sydney and its suburbs, with a density of more than five persons to the acre. The remaining three-fifths of the population are scattered over the 310,000 square miles of the state, an area two and a half times that of the United Kingdom. In Victoria, Melbourne has a population of

over three-quarters of a million out of a total population for the state of a million and a half, dispersed over 88,000 square miles. Adelaide, in South Australia, has about a quarter of a million out of 475,000 people in the whole state of 380,000 square miles, and the greater part of the population that does not live in Adelaide is gathered within a radius of fifty miles from it. Perth and its suburbs contain about 150,000 out of the 350,000 population of Western Australia, and with the exception of the goldfields area about Kalgoorlie there is no other place with a population of much over 4000. In Queensland, Brisbane has about 250,000 people, and nine other towns about 150,000 in all, giving an urban population for the state of 350,000 out of a total of 610,000. All the Australian states, therefore, have to provide solutions for two radically different educational problems, the education of dense city populations and also that of widely dispersed rural communities with frequently imperfect means of communication. While the educational systems nominally provide for the solution of both of these problems, in reality they appear to cope mainly with that of the closely settled districts, and especially the cities. Despite the many efforts that are made to assist them, the rural

communities inevitably tend to lag behind, and the gap between them and the cities increases. There are no difficulties that arise from the presence of a population of different European stock and speech, for Australians are to an overwhelming extent of British stock, the aboriginals are very small in number and offer no serious problem, and there has been no very considerable immigration from backward European countries such as has taken place in the western Canadian provinces. The Australian difficulties, therefore, are in the main attributable only to the geographical circumstances of the Commonwealth.

The concern of the State has been predominantly with primary education, and, as in England, it is only within the last thirty years that the monopoly of private enterprise in secondary education has been infringed. Throughout the Commonwealth, primary education has been compulsory for many years, and free for a somewhat shorter period. Educational development in Australia has mostly followed the lead of the parent colony, New South Wales, and there English precedents have been more closely adhered to than in the Canadian provinces. Prior to 1848 what education there was in the colony was conducted by religious denominations,

mainly the Church of England, with some monetary assistance from the State.

Many children had accompanied the first settlers, and they throve well, but their neglect was a serious cause of complaint to the more enlightened of the governors. By voluntary effort the settlers of Hawkesbury in 1802 secured from Governor King the erection of a schoolhouse, and bound themselves to pay an annual rate of twopence per acre on all their lands for a term of fourteen years towards the maintenance of a schoolmaster to teach their children. This is the earliest example of a "school rate" in Australia, and preceded any officially imposed rates of the kind in England. From 1810 onwards certain customs dues called "Orphan Dues" were charged upon goods entering the colony and set aside for the maintenance of orphan children, and from these dues sums were granted by the Government for the assistance of the schools that various ministers of the Church of England had set up in the scattered communities to which they afforded religious service. It was not until 1844 that anything more than these isolated efforts could be accomplished, but in that year, on the motion of Robert Lowe (afterwards Lord Sherbrooke), a Commission of Enquiry was set up to examine into the

causes of the deficiency of education in the colony, and to suggest remedies. It was shown that more than half of the children in the colony, numbering nearly 26,000 between the ages of four and fourteen, were receiving no schooling at all, and that of the remainder about 7700 were trained in the denominational schools and nearly 5000 in private schools, which frequently could hardly pretend to be schools at all.

The commission reported in favour of a national system of education such as had recently been initiated in Ireland, the leading principle of which should be that "the same facilities for education should be afforded to all classes of professing Christians, without attempt to interfere with the peculiar religious opinions of any, or to countenance proselytism." But this scheme was strongly opposed by the representatives of the Churches, and in 1848 two systems were set up, side by side, a National Board of Education to supervise the undenominational schools, and a Board of Denominational Education, with one representative each of the Church of England, the Roman Catholic, Presbyterian, and Wesleyan Churches to distribute sums allocated by the State to the support of their schools. In both cases it was insisted that a large part of the money required

for the erection of a new school should be provided by those who petitioned for it, and this requirement much retarded the growth of the national schools. The rivalry between the two systems was very acute, and rather than improving education by competition, it was a serious obstacle to its spread. Ultimately in 1867 a more general system was introduced, and by the "Public Schools Act" a single Council of Education was established, having sole control of the administration of primary education and the power to establish out of public moneys schools in any localities where twenty-five children would regularly attend. Denominational schools continued to receive State aid, but they were required to follow the same curriculum in secular subjects as the public schools, to undergo inspection, and to maintain suitable buildings. In the denominational schools, religious instruction might continue to be given by the ordinary teachers, but in the undenominational schools a time was set apart for the visits of the clergy or other properly accredited religious teachers, who would teach the children of their own faith.

The new system produced great improvement in the educational affairs of the colony, for it made primary education compulsory,

and the rate of progress was accelerated after 1875, when it was provided by the Legislature that the whole cost of primary education should be borne by the State. In 1880, the granting of aid to denominational schools was abolished, and the whole system was unified according to principles that still govern the educational management of New South Wales. The department administering the system is presided over by a responsible Minister, who is a member of the Cabinet, and has under his control the usual administrative and inspectorial staff. The area of the settled part of the State is divided into public school districts, each with a Local Board. School buildings are erected and maintained wholly at the expense of the Government, but the local board is responsible for the general government of the schools in its area. Teachers in the State schools belong to the Public Service, *i.e.*, are civil servants, to use the English phrase, and they are paid fixed salaries, with regular increments according to their qualifications and the classification of their schools. The whole of the cost of the school system is therefore borne by State funds, and there are no contributions from locally-raised school rates, a feature that differentiates the Australian system from that of Great Britain and Canada,

but cannot be understood without reference to historical growth. The system is wholly undenominational, and the teaching is strictly secular, but the words "secular instruction" are held to include general religious teaching as distinguished from dogmatic and polemical theology. Four hours during each day must be devoted to secular instruction, and one hour set apart for special religious instruction to be given in a separate class-room, or in a separate part of the school-room, by a clergyman or religious teacher of any denomination to children of the same denomination whose parents have no objection to their receiving such religious instruction. If no religious teacher attends, the full five hours must be devoted to the ordinary secular instruction. The history of England and of Australia must form part of the course.

Following New South Wales, the other Australian states introduced compulsory primary education up to the age of fourteen in the decade following the passing of Mr. Forster's Education Act in England in 1870, and in much the same way their date of making compulsory education free was roughly coincident with the English date. Thus Victoria, which had also had the dual system, reorganised her State education system in 1873,

South Australia made primary education compulsory in 1875, and provided for the establishment of State schools which had previously not existed, the only education in the colony having been given by private institutions. Fees were abolished up to the compulsory standard in 1891 and entirely in 1898. In Queensland, between 1860 and 1890, there were two classes of schools, "vested" and "non-vested," the latter belonging to the Anglican or Roman Catholic Churches, who provided the buildings, the State "Board of General Education" aiding by granting teachers' salaries and supplying school material. The system was re-organised in 1876, when primary education was made compulsory, but it had been free since 1870. No religious instruction is allowed to be given in school during school hours, but persons desirous of undertaking this work are permitted to do so after hours. Western Australia had compulsory education and a dual system from 1871. The aid to denominational schools was withdrawn in 1893, and in 1895 the schools were taken over by the Government in return for compensation. The right of entry is secured to the clergy for half an hour a day. Schools were established by the Church of England in Tasmania before 1839, but down to the

beginning of the present century it was felt that education was somewhat backward in the colony. There has been a good deal of difficulty between various systems and in regard to administration, but matters have now been largely assimilated to those in the State of Victoria.

To trace out recent developments in the Australian systems in regard to the introduction of manual training, improved inspectorial methods, the bursary system, and so on, would yield results very similar to those of a recapitulation of recent educational progress in England, and few points of especial interest in the town primary schools of Australia would be found. It is in the scattered rural schools that fresh experiments have had to be tried. In moderately settled districts where the children are too scattered to travel from home to school every day, central schools are established. This enables each school to be much larger and better equipped than if small schools had been maintained in each separate district. Better qualified and more contented teachers can be secured, and the cost of conveying the children to and from the central school, or even of boarding them out on occasions near-by, is well repaid. In more sparsely settled districts this device cannot be

employed, and it is necessary to sanction the maintenance of so-called " provisional " schools, in which the attendance does not amount to more than between a dozen and twenty pupils. In some regions, again, even this minimum cannot be reached, and a single teacher divides his or her time between two centres, visiting them on alternate days to instruct the small number of children gathered there. Parents are allowed to club together and build a school and engage their own teacher, and they receive as Government grant a yearly subsidy and a supply of books and school material. In certain regions itinerant teachers are employed, who visit the scattered homesteads of a district in turn, and impart what instruction they can during their visits. New South Wales and other of the states have a few " travelling " schools. Each of these comprises a travelling van in which the teacher or teachers live and keep the school material, and a tent which is erected at each place in turn as the school proceeds upon its circuit. Throughout Australia the railways are State-owned, and all children travel free on their journeys to or from schools, but there are immense areas far removed from any railway, and it is in such districts that the various devices of the " bush " school have to be tried in order to prevent

the children being deprived of all instruction. Education by correspondence has also been attempted, with promising results, upon a limited scale.

The training of teachers for the town and central schools is provided for in the ordinary English fashion by means of training colleges and bursaries, and probationary student scholarships are provided in the high schools for those desirous of entering as State school teachers. The usual length of the course is two years, but there is a one year's course for those who will take charge of small "bush" schools, or will become assistants in country schools. Until 1905 practically all the primary school teachers in New South Wales had entered upon their work as "pupil-teachers" between the ages of fourteen and sixteen, and they received in return for their services a small salary and teaching and help from the heads of the schools in which they were employed. Many of them went on later to training colleges, but large numbers obtained their certificates without this advantage, and though every effort is being made to introduce a better system, the difficulties are almost insuperable, and large numbers of uncertificated and untrained teachers have still perforce to be employed in the country districts. Different

arrangements are found in other states, and in Queensland the pupil teacher system persists, but it is unnecessary to attempt to describe the arrangements in detail, for in all alike they admittedly fall short of the standard that educational reformers desire, and they represent at any moment merely a stage in a progress that is gradually going forward in the face of extreme difficulties.

The development of secondary education of Australia, like the development of primary, has very closely followed that of England. Until comparatively recent years, secondary education was left entirely to private effort, and was not regarded as an affair of the State at all, and this is still the case to some extent. Some fine schools on the model of the English public schools or the grammar schools were set up by public subscription before the middle of the nineteenth century, especially under the lead of the Anglican and Roman Catholic churches. Sydney Grammar School is probably the best known of these, and may take its place alongside English schools of the best type, but at the other end of the scale there are schools both for boys and girls that fall lamentably below decent standards. The State schools in New South Wales that are concerned with secondary education are divided

into two classes. There are first those public schools in which the subjects taught embrace, in addition to the ordinary course, such others as will enable the pupils to compete at the senior or junior school examinations of the university, and these are called "Superior" schools. There are also "High" schools, which are concerned only with secondary teaching, but these are mainly confined to urban centres, and in the country the work is done in the superior schools that serve, as central schools, particular districts. A considerable number of bursaries are awarded annually to pupils from the public schools who desire to proceed to high schools or district schools, in which the course, as a rule, extends over a period of five years. In Queensland there are a few high schools supported by the State, and certain grammar schools, which roughly correspond to English schools of that name, and were established by Act of Legislature in 1860 simultaneously with the first separate organisation of primary schools in the State. They were endowed by subscription and by Government grants of money and lands, and are governed by co-optative boards of trustees. They receive grants from State funds of limited amount, and a certain amount of financial supervision is exercised, but, as in

the case of English grammar schools, they are not subject to such close administrative control as are the State high schools. A certain number of scholarships or free places is provided by the State. Practically every qualified child in the country districts can get a bursary, covering maintenance, to one of the State high schools.

A grammar school was founded in Tasmania under the advice of Dr. Arnold of Rugby in the thirties of last century, and received some Government assistance, but it did not serve the purpose for which it was intended, and the system was abolished in 1843. There are now certain grammar schools of the usual Australian type in the larger towns of Tasmania, and State high schools have been founded during the last twenty years. Secondary education in South Australia is provided for in a way that is similar to that in New South Wales, but the secondary schools in Victoria are for the most part under the control of private persons or of proprietary bodies, which are usually connected with some religious denomination, especially the Church of England and the Roman Catholic Church. Between 1871 and 1892, Victoria gave assistance to the principal private schools by the grant of scholarships from the primary schools, but they now receive no State

assistance. Private venture schools are found in large numbers in every State of the Commonwealth, and it is one of the most insistent problems of Australian education to find a means of ensuring that they shall reach a proper standard of efficiency. Very frequently they are hard pressed to provide decent salaries for properly qualified teachers, and their standard of equipment is often low. In Western Australia where there are no fees at the Government high schools, private schools are open to Government inspection, and must be declared efficient, but it is found very difficult to enforce proper standards.

Besides the ordinary private schools for girls and boys that profess to impart secondary education of a decently broad type, there have sprung up in recent years in Australia large numbers of so-called "Business Training Colleges," which spend considerable sums on advertising, but confine their educational efforts to mechanical subjects that are supposed to pay. As in England, the staffing and equipment of most of these places are deplorable, but owing to the comparative scarcity of good secondary schools, whether State or proprietary, large numbers of boys and girls who desire some training beyond that of the ordinary primary school, obtain it under these cheap

and very unsatisfactory conditions. The best of Australian secondary education is as good as is to be found elsewhere, but it must be confessed that the average level is very seriously lowered by the quackery of private competitive enterprise, and the state of affairs generally, even in the great cities, seems to be little, if at all, better than it was in English manufacturing towns before the great growth of State-aided secondary schools that has marked the first twenty years of the twentieth century.

THE DOMINION OF NEW ZEALAND

Primary education in New Zealand was first organised about 1855, within a dozen years of the first settlement of the colony, and it has always continued to bear traces of the arrangements prevailing at that time. Between 1853 and 1876 the colony consisted of a group of loosely federated provinces, and in each of them some system of primary education was established. The schools were administered by local committees and supported partly by grants from the provincial treasury, but mainly by subscriptions and the raising of a local rate. The schools could not strictly be called denominational, but religious instruction was provided under the supervision of the nearest minister of religion. The affairs of all the schools in

the province were generally supervised by a Provincial Board, and when the provincial governments were abolished in 1876, these boards remained to deal with educational matters in their respective districts. A central Department of Education, however, was set up under the charge of a Minister of Education to deal with the affairs of the whole colony. Under an Act of 1914, a General Council of Education for the whole Dominion has been created to advise concerning educational methods or developments deemed worthy of introduction into the Dominion, and upon such matters as bear upon the provision of further facilities for education, whether local or general.

The Dominion is divided into nine Education Districts, and these again into school districts, in each of which there is a School Committee elected annually. The District Boards are elected by the School Committees, and distribute to them the moneys granted by Parliament for the maintenance of the schools and school buildings. These funds are provided out of the consolidated revenue of the Dominion, and no local school rates are charged. The Boards look after the building and equipment of schools in their own areas, and appoint and dismiss all teachers after consultation with the

local committees. Owing to this local autonomy, there are therefore some differences to be noted between the schools in different parts of the Dominion. Everywhere, however, primary education is free, compulsory, and secular.

Besides its population of European stock, New Zealand has to deal with the education of its Maori inhabitants. Many of them live alongside their white neighbours, and with an equally civilised life, and for them no special arrangement is necessary. Their children form part of the general school population. For the Maoris who still live a tribal life there are three types of schools—village schools, maintained in the tribal centres under the direc-administrative control of the Minister of Education, native mission schools, which receive some Government assistance, and certain denominational boarding schools, in which Government free places are reserved for Maori children. In all of them, instruction is given through the medium of the English language only. The native schools serve a purpose beyond their obvious one. They are a potent agency in bringing about the assimilation of the Maori into the general population of the Dominion. They cannot in the few years that have elapsed since they were first founded

change the character of the whole race to such an extent that every Maori would be ready to abandon all his old habits, traditions, prejudices, and mode of living. But there is no doubt that the schools have succeeded in effecting considerable improvements in the mental, moral and physical conditions of the natives, and accustoming the better class to European ideas and customs. The system of education is practically the same as in other New Zealand schools, but the standard is perhaps somewhat lower, for the Maori children have to acquire English in addition to their native tongue, a task that is saved in the ordinary school. The children are easy to teach and to control, and they take a great interest in their work, so that the native schools produce candidates for Government scholarships who are quite capable of holding their own. The passage of pupils from the primary to high schools, and even to the University colleges, is not uncommon. Besides the primary native schools, certain technical schools are also largely attended by Maoris, who benefit largely by their training.

The New Zealand Government is responsible also for the government of the Pacific group known as the Cook Islands, with a native population akin to the Maori stock. Four

Government schools are maintained in the principal island, Rarotonga, and additional schools in five of the outlying islands. A similar system to that employed in New Zealand is gradually proving of considerable influence in the life of the natives, and the work of technical instruction is proving of particular value. In the Chatham Islands, lying to the south-west of New Zealand, there is a small outlying population to which the facilities of education are conveyed by the direct efforts of the department.

As in Australia, so in New Zealand private and voluntary effort play an important part in secondary education, but the State makes far more provision for schools of secondary grade than is done anywhere in the Commonwealth. There are three kinds of State-supported schools, secondary schools, district high schools with secondary departments, and technical high schools. In these latter schools the instruction given has a vocational bias, in the others it is of the ordinary secondary type, with a general leaning towards modern subjects. Besides these schools, there are also a number of endowed schools of the grammar school type, perhaps the best known being Auckland Grammar School, which can bear comparison with the best English town schools.

There are a few boarding schools run on the lines of the English public schools, and the best have a deservedly high reputation. There are four training colleges for teachers in the Dominion, and their system of education and the Governmental examinations for certificate is very similar indeed to that prevailing in England. The whole educational atmosphere in New Zealand is extremely reminiscent of England, and especially of the English agricultural counties. Educational improvements reach the Dominion and are tested almost as soon as they come to areas with a similar sort of school population in England. The entirely British character of the white population, the similarity of the climate, and the general traditions of the Dominion make it educationally, as in other ways, the most British of all the Dominions. What can be stated at any moment concerning the affairs of the English educational world is pretty certain to be true of New Zealand in the course of a short time.

CHAPTER XI

THE EDUCATIONAL SYSTEMS OF SOUTH AFRICA AND RHODESIA

Owing to its circumstances, the educational systems in South Africa have many more varieties and handle more complicated problems than those of any other dominion. Not merely are there two sections of the white population, but there is a much larger population of natives, ranging from the lowest stage of primitive savagery among the Bushmen to a comparatively high state of civilisation among some of the negroes in the Cape Province. Besides these again, there are the Indian communities of the Province of Natal with an entirely different outlook and habits, and on the edges of the settled parts of the Union are the native territories inhabited by negro tribes under their own government and with their primitive customs, who must be guarded as far as possible from the evil consequences of European contact. Different methods must be adopted for the education of each of these classes of the population, and the whole

system, therefore, seems very complex. Our attention must mainly be concerned with the arrangements for the education of children of white stock.

The first permanent settlement was founded by the Dutch East India Company at Cape Town in 1652, and in 1656 a school was established for the instruction of slave children, but it was short-lived, and it was not until 1661 that a permanent school began for the instruction both of European children and the children of slaves. It flourished on a modest scale, and in 1683 a similar school was founded at Stellenbosch, and in 1700 another at Drakenstein. The schoolmasters also had functions in the Church, and their teaching was supervised by a commission of three "Scholarchs," including the Governor and clergyman of the colony. By 1779 there were eight schools at work in Cape Town alone and others in different parts of the settlement, but the standard of education was low, and in the country districts schooling was entirely neglected. In 1791 an energetic movement was set on foot for the improvement of the state of educational affairs and for the establishment of a high school in Cape Town where French and Latin might be taught. A considerable public subscription was raised,

but owing to the disarrangement of affairs owing to the military occupation of 1795, nothing was accomplished for a time. The funds that had been collected, however, were not dissipated, and a further move forward came in 1804 during the short period of the rule of the Batavian Republic in the colony under Commissioner-General De Mist. An elaborate Education Ordinance was promulgated which provided for the placing of all public schools under Government control, a detailed scheme for the training of teachers, measures for compulsory primary education, and the support of the schools by special rates and taxes. Unfortunately the scheme was premature, and it met with violent opposition from one end of the colony to the other. The farmers were not particularly in favour of education at all, but they were resolved that what education was given should continue to be in close connection with the Dutch Reformed Church, and that De Mist's scheme was fraught with evil.

With the permanent inclusion of the Cape in the British Empire, circumstances changed, and under the energetic rule of the early English governors the rate of progress became more rapid. Under the control of the School Commission, whose membership was increased,

schools were set up at each centre in the country districts under the control of a local body, and to be taught by the resident church clerk, whose salary was to be paid by the Government. Extra salary was paid to any clerk who could undertake instruction in the English language. A little later the Education Commission was reorganised to undertake "the incessant distribution of the Scriptures and the uniform progress of Education," and it became known as the "Bible and School Commission." It was active in trying to improve the character of the education in the colony as well as to spread it more widely, and under the prompting of the English colonial chaplain, the monitorial system of Bell and Lancaster was introduced into the schools at Cape Town as early as 1812. The influx of English settlers in 1820 marked the beginning of a new period in the history of the colony, and coincident with the establishment of English as the language of government, Governor Lord Charles Somerset appointed "competent and respectable instructors at public expense at every principal place throughout the colony, for the purpose of facilitating the acquirement of the English language by all classes of society." These teachers were to give free elementary education to all, and thus a system

of English schools was set up alongside, but not replacing, the church clerk schools, in which instruction was in Dutch. The Bible and School Commission with the best of intentions was unable to accomplish much, owing to its lack of means for the superintendence of the schools in the country districts, and to its difficulties in finding competent teachers. In 1838 the state of affairs was so obviously unsatisfactory that the advice of the celebrated astronomer, Sir John Herschel, who was visiting the Cape, was sought by the Governor, and he drew up a very detailed and well-organised scheme for schools of all grades. With the additions and alterations suggested by the criticisms of other educational reformers, the scheme was generally adopted by the Government, and schoolmaster recruits were obtained from Scotland to aid in carrying it on under the direction of a Superintendent-General of Education for the whole colony, the first holder of this office being Mr. James Rose Innes, who was Professor of Mathematics at the South African College which had been opened in Cape Town in 1829.

The Government Memorandum introducing the scheme of 1839 lies at the basis of the educational system of the Cape Province to-day, and it has a great deal of influence in

other parts of South Africa, so that a summarisation of its most important provisions is achieved by a description of the present system of primary education. The local school commissions established in 1812 were not abolished, but their functions were somewhat modified. The Bible and School Commission was discharged from the superintendence of the public schools in 1841. Into the various minor reforms that were tried in succeeding years in the colony we need not enter, but between 1861 and 1863 a very important commission examined into the whole educational system and presented an elaborate report of great importance, upon which legislation was based that remained in force with comparatively little alteration down to the close of the nineteenth century.

Under the South Africa Act of 1909, whereby the unification of the various colonies was brought about, control of education other than higher education was retained in the hands of the four Provincial administrations for a period of five years at least. This arrangement has continued, and in regard to primary and secondary education each province has continued to develop its own separate policy. In each province, the central control is exercised by an Education Department, with a permanent

official at its head known as the Superintendent-General or Director. In each case he is assisted by a staff of inspectors and organisers, whose duties are subdivided in the ordinary way. Certain inspectors are concerned only with native schools, and in some provinces there are travelling instructors in special subjects, who are directly employed and paid by the Department. In the Cape Province the great majority of schools for European pupils are controlled by School Boards, each looking after the affairs of the schools in a particular district. Two-thirds of the members are elected by the ratepayers and one-third nominated by the Government or the local authority. The Boards have the general financial control and maintenance of the schools in their district, but the government of each school, including the appointment of teachers, is vested in a school committee elected by the parents or nominated by the Board. Fees were abolished in all primary schools in 1920, and the expenditure on education is now almost entirely provided for out of the provincial revenue. In certain sparsely-settled districts, it is impossible to secure the regular attendance of ten children, the minimum number for the organisation of a primary school with a full course. A simpler form of organisation is

therefore adopted, that of a "farm school," of which there are nearly 500 in the province. They are in reality little more than groups of children gathered in a particular farm under the care of a tutor or governess.

In Natal there is no system of local administration, and all the schools are directly under Government control, the entire cost of the primary education of white children being paid out of provincial funds. No native, Indian or coloured children (*i.e.*, children of mixed stock) are allowed in schools other than those specially provided for them. The medium of education in most schools in Natal is English, but in some districts where Dutch is the mother tongue of the children special arrangements are made. South Africa is a bi-lingual country as far as its European population is concerned, and therefore varying arrangements have to be made in every part of each province according to the prevailing character of the population. In the Transvaal the arrangements for the local administration of the schools are similar to those in the Cape Province. There are Education Boards, which are partly elected and partly nominated, and School Committees with supervisory functions for each school. The Department of Education establishes and maintains schools for white

children, and the whole cost is met out of the provincial revenue. This is also the case in the Orange Free State, but there the powers of the elected School Boards are generally less than those in the Transvaal, and all appointments of teachers are made by the Department of Education. There are elected School Committees in each school district, who supervise the work of their schools and advise the Department in respect of them. Primary education is free, and for white children in every province of the Union it is compulsory.

The share of the State in secondary education is very considerable in South Africa, and since the earliest days of the colony the Government has taken an interest in providing facilities for education above the primary standard. It is perhaps most advanced in the Cape Province, where the system of State schools other than primary has been highly organised since the middle of the nineteenth century. The province supports training colleges for teachers, training schools, high schools, and secondary schools, both the last of which provide courses leading up to the Matriculation Examination of the university. In Natal there are "higher-grade elementary schools" and secondary schools of the ordinary State-aided type; in the Transvaal the secondary

and possibly of some neighbours in reading the Koran, in writing, and in simple arithmetic. There were schools of higher Muslim learning attached to some mosques, and certain of them still persist, but they have been largely replaced by *madrasas* or colleges of a more modern type, where the curriculum is wider, and grammar, rhetoric, and Muslim theology and literature are studied. The earliest Governmental assistance to Indian education was in connection with the *madrasa* at Calcutta, which was founded under the influence of Warren Hastings in 1782.

The introduction of Western learning into the territories under the rule of the East India Company was touched on in connection with the Indian universities, and here we need only recall Sir Charles Wood's great memorandum on education of 1854. The principles then laid down were re-affirmed in 1859 after the transfer of administration to the Crown, and in the main they still are implicit in the educational system. In each Province there was to be set up a Department of Public Instruction, and institutions for the training of teachers for all classes of schools were planned. A system of grants in aid of the schools that had been founded by private persons or societies was authorised, and, generally speaking,

plans were laid for the multiplication and improvement of vernacular schools for elementary education in every part of India. Government-aided schools in Bengal in the third quarter of the nineteenth century were comparatively few, but in the North-West Provinces since their founding in the period of Sir Charles Wood's reforms, there have been vernacular elementary schools supported by local rates in practically every district. A somewhat similar system was early elaborated in Bombay, but in Madras the educational work of the Government was for many years confined to the assistance of a comparatively few private institutions, which were mostly founded by missionary societies. In the reconstruction period after the Mutiny, several Acts were promulgated in practically all the provinces of India for raising local funds by taxation for the furtherance of primary education, and the United Provinces and the Punjab first raised such rates in 1871.

An immense development took place in all grades of Indian schools between 1871 and 1882, when a very important commission reviewed the whole system and made many recommendations in regard to it. From that date onwards progress was accelerated in every direction, and before the opening of the

twentieth century access to primary and secondary education had been placed within the reach of every child in the principal centres of population throughout India. Besides this, a real beginning was made in carrying elementary teaching to the peasants in the village communities wherein the masses of the peoples of India live. A further wide-spreading measure of reform was undertaken in 1898, and a Director-General of Education was appointed to advise the Government of India. A searching inquiry was made into questions of technical education and the possibility of overcoming the undue literary bias of a great deal of the work done. Under the inspiration of the contemporary movement for technical education in England, large sums were spent on founding and equipping laboratories and workshops, and an immense amount of labour was put into the schemes, but unfortunately only to yield results that were a considerable disappointment to their promoters. Further inquiries have taken place from time to time, and the Calcutta University Commission of 1917-19 did a great deal of work, and made many important recommendations, not only in regard to the University, but also on secondary education in India and especially in Bengal. These recommendations are having some potent

reactions throughout the Indian educational systems, and the Report of the commission is an indispensable mine of information and helpful criticism.

When we turn from the progress of the Indian educational systems to the primary schools as they exist to-day, we find that it is only in rare cases that such schools in India are managed directly by a Government Department of Education. The organisation of education is a provincial matter, and while in Bengal most of the schools are under private management, but receive grants-in-aid from the Government, in Bombay, Madras, the United Provinces, and the Punjab, there are large numbers of primary schools administered by municipalities and district Boards, and supported by local rates. Rural schools are generally backward in all the provinces, but they are probably less so in Southern India than in the north. There has been a general complaint against Indian primary education that it is unintelligent and cultivates the memory at the expense of the faculties that the pupils will use in their after life. There is a great deal of learning by rote and recitation of sentences in unison after the teacher that leads to little of value. The traditional exercises in complicated English arithmetic

have found their way down to teachers and children who have never the remotest idea of their meaning or purpose, but perform them blindly as a jugglery dictated from above, and utterly without connection with life. But many improvements have been made in recent years, and modern methods of primary instruction have been introduced into all the provinces. Kindergarten methods and object lessons have been widely started. Courses that deal with objects familiar in the daily life of the children are used, and at every step the pupil is led from the more to the less familiar, so that his faculties may be trained on the lines on which he will have to use them in later life. To spread more enlightened methods is a gigantic task, for there are in the primary schools of India considerably over 100,000 teachers, most of whom are intensely conservative and have an ingrained liking for the ancient and unintelligent ways.

The greatest difficulty throughout the whole of the primary system is to find properly educated teachers. They are needed in great numbers, but their pay is very small, and their work is not very highly regarded. Governmental efforts have been directed to the finding of means to make more adequate payments, but it is not easy to raise the standard in a

province like Bengal, where primary education is largely catered for by private enterprise, and there are no fixed fees. The payment of the teacher is dependent on his bargains with the parents of his scholars, and the miserable monthly salary he gets from public sources is supplemented by these fees and occasional presents in cash or kind. The imperfect results of the work of untrained teachers were recognised as long ago as Sir Charles Wood's memorandum of 1854, and both then and by the Commission of 1882 it was insisted that as soon as possible every teacher ought to be required to pass a test in the principles and practice of teaching. Even after the lapse of forty years and the expenditure of a great deal of effort, it has been impossible to approach this standard, though training institutions have been set up in all the provinces. Normal schools have been started in many places by missionary societies and in others by provincial governments, and their courses include both general and technical subjects and practical training. To a preponderant extent, however, the lower ranks of the teachers in India continue to be recruited by traditional methods that partake somewhat of the nature of apprenticeship as in other trades. Many of those who have failed in their examinations

for the universities and thus have not attained the passport into Government employ or into a profession, drift into teaching as the easiest work for the unskilled, and continue with bitter discontent in the necessity of earning a living.

Many of India's problems in primary education differ little in principle from those in other parts of the world, but she has peculiar problems of her own. Knowledge was in the old days considered to be the monopoly of the higher castes, and access to it was forbidden to men of the lower castes. They remained entirely illiterate, and it is only gradually that under British rule this state of affairs has been remedied. Since the presence of low-caste children in the common schools was objected to on account of its infringement of caste rules and the supposed physical contamination that it caused, special schools have been opened in places where there are considerable numbers of the outcasts. Christian missionaries have done a great deal of work in trying to raise the status of the low-caste population and in mitigating the evil effects of the age-long boycott of the "untouchables" by those who are higher in the social scale. In rural schools the Indian problems differ somewhat from those elsewhere. The mass

of the peasantry in every Indian province is wholly illiterate, and the cultivators are therefore the easy prey of the business men of the towns to whom they sell their produce, and by whom they are persuaded to make extravagant purchases or to borrow money they can never repay. To remedy this dangerous ignorance and to educate the cultivators so that they can appreciate the advantages of improved agricultural methods has been the preoccupation of every Indian educational administrator for many years. During the last twenty years some progress has been made with the task, and rural schools have been widely organised. School is held both in the morning and the afternoon, but most of the pupils attend only one session, and for the rest of their time they help their parents in the fields. The subjects taught are very simple, and are adapted to the needs of the villagers ; native accounts, simple forms of agreement, the plants and animals of the locality, its agricultural products, and the elements of sanitation form the principal part of the curriculum. The increasing success of the rural schools is largely to be attributed to the abandonment of unduly ambitious aims and to the serious attempt that has been made to understand the point of view of those who ought to benefit by the education that is

given. The most striking fact in the history of Indian education in the last fifty years has been the enormous increase in the demand for secondary education, especially that carried on through the medium of English. In all the large provinces, the great majority of secondary schools are under private management, but of those under public control there are more managed by the Government than by local authorities. In the memorandum of 1854 the principle was laid down that "it is ordinarily expedient to provide the means of secondary education only where adequate local co-operation is forthcoming, and therefore, in all ordinary cases, secondary schools for instruction in English [should be] established by the State preferably on the policy of grants-in-aid." This principle was re-emphasised by the Education Commission of 1882, and to its operation the great preponderance of privately-managed schools is due. Unfortunately in many instances the schools only fulfil the minimum requirements necessary to secure the grant-in-aid, and there are many private venture establishments that do not reach even that comparatively low standard, but coach large numbers of pupils in a very inefficient and uneducative way to pass the matriculation examination of the university. The Calcutta

University Commission commented very unfavourably on the condition of large numbers of these schools and recommended reforms in the way of inspection and so forth by which it was hoped that they might be improved.

In English secondary schools, the courses that are most largely attended lead up to the matriculation examination, because that is a test that is commonly regarded as qualifying for employment under the Government and in other work demanding some standard of education. Very large numbers of boys enter for the examination who never intend to proceed to a university course, but their education is dominated by the literary character of the test and the need of including in it only subjects which lend themselves to the examination of immense numbers of candidates. To achieve many passes, the attention of teachers and scholars is often concentrated on pure cramming, and sound methods of teaching and the training of character are neglected because they do not pay. The whole question of these examinations and of their ill-effects has given rise to a great deal of controversy that is by no means over. It is much too large to enter upon here, but it may be studied with advantage in the Report of the Calcutta University Education Commission and the

voluminous evidence that was presented. The evils are, in the view of the Commission, worse in Bengal than in other provinces, some of which have succeeded in directing more of their schools towards training of a practical character by the imposing of suitably designed tests in the school-leaving examinations. In the United Provinces where an unusual measure of success has been achieved, this may be due to the higher proportion of Muhammadans receiving secondary education, and their greater liking for practical pursuits. The Muhammadan community generally are less progressive in matters of education than the Hindus, owing to a number of social and political causes, and also to the fact that boys are required to devote a considerable share of their attention to the study of the Koran at the expense of secular learning.

The greatest gap between the educational systems of India and those of the West is in respect of female education, for the traditional usage has been to regard education as solely the prerogative of the male sex. Down to 1854 or thereabout nothing had been done to overcome this ancient prejudice, but from then onwards the Government made efforts to provide what educational facilities it could for girls as well as boys. State funds have

been more freely used and State management more largely resorted to than in the case of boys' schools, but the inertia of social custom and prejudice is terribly hard to overcome, and the seclusion of the women of the well-to-do classes, both among Hindus and Mohammedans, has proved a very formidable obstacle. Striking differences are to be found in the proportion of girls attending school to the total female population in different provinces, and an examination of them reveals that their cause is undoubtedly to be found in the social structure. Only as public opinion slowly changes under the influence of new ideas, can it be hoped that any widespread measure of success can be attained in the education of Indian girls. In the schools the methods and curricula are much the same as those in boys' schools, and on the very much smaller scale of numbers the same difficulties of securing well-trained teachers are manifest. Missionary schools and the work of women missionaries in home teaching have done much good, but they have naturally not affected very much the most orthodox and conservative families on whom the stability of society depends.

The last difficulty that can be touched upon is also peculiar to India, and is to be found in

regard to the provision of education for the domiciled European and the Eurasian communities. Ever-increasing numbers of Europeans are employed in India in connection with the great industrial developments that have taken place in the last half century. Many of them are unable to make sufficient money to return, and they marry and settle down in India, and find it necessary to provide education for their children. There is a considerable demand for well-educated Europeans or Eurasians, but none at all for the uneducated who can only enter upon a labour market already overcrowded with native Indians. But the individuals of the communities are often scattered widely, and they cannot in most cases afford to send their children long distances from home to be educated. An inquiry into the question in 1878 showed that a very large proportion of European and Eurasian children were growing up in absolute ignorance, and would almost of necessity become idle and mischievous members of society as they grew up. This led to the determination of the Government to adopt a very liberal policy in the interest of the State, and to the encouragement of all classes of European schools. Grants-in-aid are made to the institutions that have been in many cases established by missionary societies,

and they are paid on the basis of average attendance whenever the efficiency of the school can be certified by the inspector. Boarding charges are paid to the children of parents living far from any school, and bursaries to discharge their fees at some school in the province. In localities having only a small or poor European population, special grants for the foundation of schools are made, and orphanages have been charitably endowed to support children who have lost their parents. The provinces vary in this as in other matters in the success that has attended their efforts, but, generally speaking, things are much better than they were at an earlier date. It cannot be claimed, however, that they are even yet satisfactory, and in the press of enormously insistent problems that crowd upon those responsible for the government of India, there is some danger that the British people who have made India their permanent home may be forgotten, unknown as they undoubtedly are to the mass of Englishmen.

CHAPTER XIII

THE EDUCATIONAL SYSTEMS OF THE DEPENDENT EMPIRE

When we turn to consider the educational systems of the Dependent Empire, we find ourselves faced by a wilderness of facts and figures in voluminous official returns that is baffling to any one but the statistician, or one who really revels in catalogues. To the ordinary reader the material is frankly repulsive, but by dint of some persistent attempts at classification it may perhaps be possible to extract some general principles, and the best way to do this appears to be to consider a few typical colonies as illustrative of the methods that have been adopted to deal with different problems, and to describe their systems in bare outline. The colonies that do not possess responsible government group themselves, as far as education is concerned, under three headings:

(*a*) Long-established colonies with a considerable resident population of European stock, such as Malta, the

Falkland Islands, Jamaica, and Barbados.

(*b*) Colonies and protectorates in the East with a population of varied Asiatic stocks and a basic civilisation of non-European kind. Such are Ceylon, Hong Kong, and the colonies and protectorates of Malaya.

(*c*) Colonies without any considerable population of European stock, whose inhabitants are gradually being raised under British rule from a primitive stage of culture. Many of these have only been brought under British rule within the last half century, and in all of them attempts at the education of the native are of comparatively recent date. Nigeria, Kenya, and Nyasaland may be taken as typical examples.

Barbados is one of the most ancient of British colonies, having been first settled in the first half of the seventeenth century. The small area of the island is densely populated with a considerable resident white population, and a much larger number of negroes descended from the slaves who cultivated the plantations in the eighteenth century. The first attempt

to provide education in the island was in private schools of a very inferior sort, and the better class of planters sent their sons home to be educated in England. The private schools were mostly kept by the clergy of the island, and no person could legally teach unless he held a licence from the Governor, and had taken the oaths of allegiance and supremacy. This provision was aimed against the Quakers, whose founder, George Fox, visited Barbados in 1671, and gained many adherents. The first charity school for the children and orphans of poor whites was founded in 1682, and between then and the middle of the eighteenth century many educational benefactions were made. The most important of these was for the endowment of Codrington College, which was intended to maintain professors and scholars for the study and practice of divinity, physic, and surgery. The scheme was not fulfilled along the lines planned, and when the college was opened in 1742 it was as a grammar school of the ordinary English type of the time. It did its best work along these lines about the end of the eighteenth century, but in 1830 took up the work of higher education under the same inspiration from the Church of England as that which led to the founding of the University of Durham. The Codrington

Grammar School was taken under the care of the Society for the Propagation of the Gospel, and is now called the Lodge School, after one of the Society's estates. After many vicissitudes, it finally achieved success as a first-rate secondary school, and is now among the best schools in the British West Indies. The other many educational endowments of the island, after serious mismanagement in the eighteenth and the first half of the nineteenth century, have now been mostly allocated to the education of the poorer white classes in schools corresponding to the lower grades of English secondary schools. No education was provided for negroes until the nineteenth century, for they were practically all slaves, and their owners objected that even instruction in the elements of Christianity would destroy their property.

The first attempts at primary education were made by the missionary societies, both Church and Nonconformist, and in 1818 the Colonial Charity School was opened for the instruction of poor coloured children and assisted by the Church Missionary Society. In 1846 the first Government grant for elementary education was made, and its expenditure was entrusted to the Bishop. Four years later an Education Committee (now

called the Board of Education) was set up with more liberal grants and provisions for school inspection that did much to raise the generally very low level of the primary schools. Further advances were made under the recommendations of Education Commissions, assisted by advisers from England in 1875 and 1896, and matters were placed upon their present footing. With certain modifications rendered necessary by the circumstances of a tropical island, the system was closely assimilated to that in England. Education is not compulsory, and no special educational provision is made for any section of the community nor for mentally defective children. The funds for support of primary schools are almost entirely derived from the Government, but the vestries of certain parishes make some small grants. An excellent grammar school, called Harrison College, in Bridgetown, has an endowment from sugar plantations left by Thomas Harrison in 1733, and also liberal grants from the Legislature, and from these and other schools of the public school type, Barbados boys pass with Government or endowed scholarships to English or American universities.

The description of the system of Barbados may be generally applied to the other small islands of the British West Indies, but Jamaica,

as the largest colony, though it has a similar educational history, needs some separate mention. The long story of the educational vicissitudes of the colony has been told by Mr. Frank Cundall in a most interesting contribution to the Jamaica Handbook,[1] which throws a vivid light on the paradoxical beneficence, public spirit, venality, and neglect of the eighteenth century, and those who desire to pursue the subject may be referred to his article. In 1740 Leslie wrote that "Learning in Jamaica is at its lowest ebb; there is no public school in the whole island, neither do they seem fond of the thing; several large donations have been made for such uses, but have never taken effect. The office of a teacher is looked upon as contemptible, and no gentleman keeps company with one of that character; to read, write, and cast accounts, is all the education they desire, and even these are but scurvily taught. . . . Some of the ladies read, they all dance a great deal, coquet much, dress for admirers, and at last, for the most part, run away with the most insignificant of their humble servants. Their education consists entirely in acquiring these little arts. 'Tis a thousand pities they do not improve their minds as well as their bodies;

[1] The Handbook of Jamaica for 1911, pp. 599-612.

they would then be charming creatures indeed." Bequests for educational purposes were liberally bestowed upon Jamaica in the period of its great prosperity, but they were to a great extent misappropriated, the celebrated William Beckford being one of the most notorious offenders in his dealings with the large endowments left by Charles Drax in 1721 for the establishment of a charity school in the Parish of St. Ann's. The law case in which Beckford was made to disgorge was one of the *causes celèbres* of the late eighteenth century. Probably most of the parishes in the colony received educational bequests of some sort, but the neglect was so bad that various commissions of inquiry were instituted and the English Charity Commissioners in 1843, after prolonged investigation into the schools of Jamaica, had to insist that the Legislature had full right to deal with the funds in any way it deemed expedient, in order "to apply them more usefully to the great purpose of education, for which they were originally intended." In 1865 an Act was passed by which the Government appropriated the sums of money deposited from time to time in the Public Treasury by various charities and institutions at varying rates of interest, and became responsible for the payment of perpetual annuities in lieu

thereof, thereby preventing for the future the misapplication of funds that had occurred in earlier years. In 1879 the Jamaica Schools Commission was set up to exercise functions of supervision over the old endowed schools of the island, and to further the improvement of education in them. The Jamaica High School was founded, and a Jamaica Scholarship, the blue ribbon of Jamaica education, was endowed. This is now divided into two scholarships of the value of £250 a year each for boys and girls respectively to enable the best Jamaican candidates in the Cambridge Higher School Certificate Examination to proceed to one of the universities of the British Empire for the purposes of education.

Elementary education for the people cannot be said to have existed in Jamaica before the emancipation of the slaves. When that was complete, the Parliament of the United Kingdom made grants of £30,000 a year for five years to establish negro schools, and the grants were continued on a lesser scale for another five. There was for a short time great popular enthusiasm, but the schools that were set up were very inefficient, and in a short time enthusiasm dwindled into complete indifference. When the British grants ceased in 1845, a Board of Education was appointed by

the Jamaican Government to further primary education out of the island's own resources. Little solid advance, however, was made until about 1870, when the educational reforms taking place in England brought about a fresh start, and things began to run closely parallel with movements at home. Compulsory attendance was introduced in certain parishes in 1895; a Central Advisory Board was established, and fees for primary schools abolished by Acts of 1892. A searching inquiry into all the educational systems of the island was made in 1897, and great reforms were undertaken. The schools of the island are both under governmental and denominational control, but by these reforms it was provided that no further denominational schools should be sanctioned, and many small and inefficient schools were amalgamated or closed. The present proportions are indicated thus:—Government, 109; Church of England, 180; Baptist, 118; Wesleyan, 77, and Methodist, 10; Moravian, 57; Presbyterian, 56; Congregational, 22; Roman Catholic, 31; American Missionary, 5; Society of Friends, 3. It will be noted, therefore, that religious differences are still very prominent, and the labours of missionary societies must still play an important part in the life of the island. The

general structure of the modern educational system shows little outstanding difference from English developments.

Those who desire to make a close study of the educational systems of the Dependent Empire in general must be referred to the official papers prepared in accordance with resolutions passed at the Imperial Education Conference held in London in 1911. General accounts of "the educational systems of the chief Crown Colonies and possessions of the British Empire" were published in 1905 among the Board of Education's Special Reports,[1] but they rapidly became out of date, and new reports were needed. These were undertaken by the Administrations of the Colonies concerned, with the approval of the Colonial Office, and the first of them were published in 1913. Others followed in 1914 and 1915, and they now form an indispensable mine of reference for the affairs of the twenty-four dependencies with which they deal.[2] They supplement with very interesting historical surveys the bald outlines of the educational systems as they stand to-day, which are to be found most accessibly in the Colonial Office

[1] See Vols. XII, XIII, and XIV.

[2] *Imperial Education Conference Papers.* III. Educational Systems of the Chief Colonies not possessing Responsible Government. Published by H.M. Stationery Office.

List,[1] and more fully in the handbooks of the various colonies.[2] To compress or tabulate the facts that they have already squeezed of their essence would merely result in the production of a few husks, and space does not here admit of an attempt to trace further the ramifications of the streams that have proceeded through the efforts of British missionaries and officials into every part of the world. The surveys of past educational history that are to be found in the Imperial Conference Papers reveal that those streams of educational and spiritual enterprise have played an immense, possibly even a preponderant, part in pressing down the roots of the Empire surely in its dependencies. There must be many patient investigations into the history of the nineteenth century and many monographs produced before we can attempt to synthetise the story or analyse the causes of the growth of the new British Empire since 1783. The contact of West and East, of white man and black, of Arabs or Asiatics with both, and numberless other points must be studied patiently and historically before we can satisfactorily account for the

[1] The Colonial Office List, comprising Historical and Statistical Information respecting the Overseas Dominions and Colonial Dependencies of Great Britain. Compiled from official records and published annually. London: Waterlow and Sons.

[2] See for example, *The Ceylon Manual* (for the use of officials). Comparable with the Colonial Office List. Last edn., 1912-13. The Mauritius Almanac (98th publication since 1769), and so on.

diversities of the educational systems of to-day. the aims that inspire them, or the results that they achieve. To-day before these investigations can hardly be said to have begun, only one conclusion seems to gain fresh and ever fresh strength the deeper we proceed into the wilderness of unrelated facts. Among the means by which the bonds of comradeship are carried down into the lives of all the vastly diverse peoples that owe allegiance to the Crown, the most potent of all are to be found in the universities and the schools. It is they, above all other agencies, that must sway and direct the spiritual forces, the ideas, and the sentiments in which the abiding strength of the British Empire rests.

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